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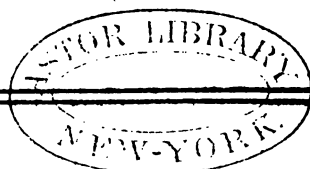
2011
2010
2009

1944
1945
1946
1947

T H E
N A U T I C A L A L M A N A C
A N D
A S T R O N O M I C A L E P H E M E R I S,

F O R T H E Y E A R 1773.

Published by O R D E R of the
C O M M I S S I O N E R S O F L O N G I T U D E.



L O N D O N :

Printed by RICHARDSON and C^s,
P R I N T E R S ;

A N D S O L D B Y

J. N O U R S E, in the Strand, and Mess. M O U N T and P A G E
on Tower-Hill,

Bookfellers to the said C O M M I S S I O N E R S.

M D C C L X X I.

[Price Three Shillings and Six Pence.]

EXTRACT from the Act of Parliament
concerning the Longitude, made in the
Fifth Year of the Reign of his present
Majesty.

WHEREAS the Publication of Nautical Almanacs constructed by proper Persons, under the Direction of the said Commissioners, would greatly contribute to make the said Lunar Tables more generally useful; Be it further Enacted, by the Authority aforesaid, That it shall and may be lawful to and for the said Commissioners to cause such Nautical Almanacs, or other useful Tables, to be constructed, and to print, publish, and vend, or cause to be printed, published, and vended, any Nautical Almanac or Almanacs, or other useful Table or Tables, which they, or the major Part of them, shall, from time to time, judge necessary and useful, in order to facilitate the Method of discovering the Longitude at Sea; any Law, Statute, exclusive Privilege, private Charter, or other Custom, to the contrary thereof notwithstanding.

And be it Enacted, by the Authority aforesaid, That no Person or Persons shall print, publish, or vend, or cause to be printed, published, or vended, any Nautical Almanac or Almanacs, or other Table or Tables constructed under the Direction of the said Commissioners, without being first licensed by the said Commissioners, or the major Part of them: And if any Person or Persons not so licensed, or not being authorized by the Person or Persons so licensed by the said Commissioners, shall print, publish, or vend, or cause to be printed, published, or vended, any such Nautical Almanac or Almanacs, or other Table or Tables, every such Person or Persons shall, for every Copy of such Nautical Almanac or Table so printed, published, or vended, forfeit and pay the Sum of Twenty Pounds; to be recovered by Action of Debt, Bill, Plaint, or Information, in any of his Majesty's Courts of Record at *Westminster*; and that One Moiety of such Penalty and Forfeiture shall be to his Majesty, his Heirs and Successors, and the other Moiety to him or them that shall prosecute, inform, or sue for the same.

EXTRACT

EXTRACT from the late Act of Parliament concerning the Longitude, made in the Tenth Year of the Reign of his present Majesty.

BE it Enacted by the KING's most Excellent Majesty, by and with the Advice and Consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the Authority of the same, That the said Commissioners constituted by the said several Acts before-mentioned for the Discovery of the Longitude at Sea, and for examining, trying, and judging of all Proposals, Experiments, and Improvements relating to the same, or any Five or more of them, shall have full Power to hear and receive any Proposal or Proposals that have been, or that shall hereafter be made to them for discovering the said Longitude at Sea; or for improving the said [Professor Mayer's] Lunar Tables; or for making any other Discovery or Discoveries, Improvement or Improvements, useful to Navigation; and in case the said Commissioners, or any Five or more of them, shall be so far satisfied of the Probability of any such Proposal, as to think it proper to make Experiment thereof, or of the Utility of such Discovery or Improvement, as to think the same deserving of Reward, they shall certify the same under their Hands and Seals to the Commissioners of the Navy for the Time being, together with the Names of the Person or Persons who shall be the Author or Authors of such Proposal or Proposals, or who shall make such Discovery or Discoveries, Improvement or Improvements; and, upon producing such Certificate, the said Commissioners of the Navy are hereby authorized and required to make out a Bill or Bills for any such Sum or Sums of Money, not exceeding in the Whole the Sum of Five thousand Pounds, as the said Commissioners for the Discovery of the said Longitude, or any Five or more of them, shall think necessary for making any Experiments, or for giving any Reward or Rewards, Sum or Sums of Money, to such Person or Persons as shall improve the said Lunar Tables, or shall make any Discovery or Discoveries, Improvement or Improvements useful to Navigation, in pursuance of this Act, or any of the said Acts herein before-mentioned, payable by the Treasurer of the Navy; which Sum or Sums of Money the Treasurer of the Navy for the Time being is hereby authorized and required to pay immediately to the Person or Persons mentioned in the said Certificate or Certificates, out of any Money that shall be in his the said Treasurer's Hands unapplied for the Use of the Navy: Provided always, That if any such Reward or Sum of Money shall exceed the Sum of One thousand Pounds; then, and in that Case, the same shall be certified under the Hands and Seals of the major Part of the said Commissioners for the Discovery of the said Longitude.

By the COMMISSIONERS appointed by Acts of Parliament for the Discovery of the Longitude at Sea, and for examining, trying, and judging of all Proposals, Experiments, and Improvements relating to the same.

WHEREAS we have employed proper Persons to compute Nautical Almanacs and Astronomical Ephemerides for the Years 1773 and 1774, which will greatly contribute to make the Lunar Tables constructed by the late Professor MAYER of *Göttingen* (which you have already printed with our Authority) more generally useful; and whereas we think fit to employ you to print the said Nautical Almanacs and Astronomical Ephemerides: We do therefore, in pursuance of the Power vested in us by Act of Parliament, hereby license, authorize, and empower you to cause the same to be printed, together with such other useful Tables for facilitating the Method of discovering the Longitude at Sea, as shall have been constructed under our Direction, and will be delivered to you by the Reverend Mr. NEVIL MASKELYNE, his Majesty's Astronomer Royal at *Greenwich*; and for so doing this shall be your sufficient Warrant. Given under our Hands and Seals the 2d Day of *March* 1771.

TO Mr. WILLIAM
RICHARDSON,
Printer in *Salisbury-*
court, Fleet-street.

SANDWICH (L.S.)
FL. NORTON (L.S.)
T. GRIFFIN (L.S.)
J. FORBES (L.S.)
T. FRANKLAND (L.S.)
J. WEST (L.S.)
N. MASKELYNE (L.S.)
T. HORNSBY (L.S.)
J. SMITH (L.S.)
E. WARING (L.S.)
A. SHEPHERD (L.S.)
P. STEPHENS (L.S.)
H. PALLISER (L.S.)
J. SMITH (L.S.)

By Order of the Commissioners,

JOHN IBBETSON. Secretary.

By the COMMISSIONERS appointed by Acts of Parliament for the Discovery of the Longitude at Sea, and for examining, trying, and judging of all Proposals, Experiments, and Improvements relating to the same.

WHEREAS we think fit to employ you to publish and vend, and to cause to be published and vended, the Nautical Almanacs and Astronomical Ephemerides for the Years 1773 and 1774, together with other useful Tables (constructed under our Direction) for facilitating the Method of discovering the Longitude at Sea, which will be printed by Mr. WILLIAM RICHARDSON of *Salisbury-court, Fleet-street*: We do therefore, in pursuance of the Power vested in us by Act of Parliament, hereby license, authorize, and impower you to publish and vend, and to cause to be published and vended, the said Nautical Almanacs and Astronomical Ephemerides, together with the other useful Tables above-mentioned. For which this shall be your sufficient Warrant. Given under our Hands and Seals the 2d Day of *March* 1771.

To Mr. JOHN NOURSE,
Bookseller in the *Strand*.

SANDWICH	(L.S.)
FL. NORTON	(L.S.)
T. GRIFFIN	(L.S.)
J. FORBES	(L.S.)
T. FRANKLAND	(L.S.)
J. WEST	(L.S.)
N. MASKELYNE	(L.S.)
T. HORNSBY	(L.S.)
J. SMITH	(L.S.)
E. WARING	(L.S.)
A. SHEPHERD	(L.S.)
PH. STEPHENS	(L.S.)
H. PALLISSER	(L.S.)
J. SMITH	(L.S.)

By Order of the Commissioners,

JOHN IBBETSON, Secretary.

✶ A Licence was also granted to the like Effect to Mess.
JOHN MOUNT and THOMAS PAGE, Stationers on *Tower-hill*.

P R E F A C E.

THE Commissioners of Longitude, in pursuance of the Powers vested in them by Act of Parliament, present the Publick with the NAUTICAL ALMANAC and ASTRONOMICAL EPHEMERIS for the Year 1773, being the Seventh Impression, to be continued annually; a Work which must greatly contribute to the Improvement of Astronomy, Geography, and Navigation. This EPHEMERIS contains every Thing essential to general Use that is to be found in any Ephemeris hitherto published, with many other useful and interesting Particulars never yet offered to the Publick in any Work of this Kind. The Tables of the Moon had been brought by the late Professor MAYER of Gottingen to a sufficient Exactness to determine the Longitude at Sea, within a Degree, as appeared by the Trials of several Persons who made Use of them. The Difficulty and Length of the necessary Calculations seemed the only Obstacles to hinder them from becoming of general Use: To remove which this EPHEMERIS was made; the Mariner being hereby relieved from the Necessity of calculating the Moon's Place from the Tables, and afterwards computing the Distance to Seconds by Logarithms, which are the principal and only very delicate Part of the Calculus; so that the finding the Longitude by the Help of the EPHEMERIS is now in a Manner reduced to the Computation of the Time, an Operation equal to that of an Azimuth, and the Correction of the Distance on account of Refraction and Parallax, which is also rendered very easy by either of the Two Methods invented by Mr. LYONS and Mr. DUNTHORNE, and published among the Tables
requisite

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requisite to be used with the EPHEMERIS; or by either of the Two Methods annexed to the EPHEMERIS of 1772, being both Improvements of the Method which I formerly published in the BRITISH MARINER'S GUIDE and PHILOSOPHICAL TRANSACTIONS, the First by myself, and the Second by Mr. GEORGE WITCHELL.

By Desire of the Commissioners of Longitude, I drew up the Explanation and Use of the Articles contained in the EPHEMERIS, and the Instructions, with Examples, for finding the Longitude at Sea by the Help of the same. I also collected and calculated the Sixteen First Pages of Tables requisite to be used with the EPHEMERIS, and computed the Table of proportional Logarithms, which seemed to me absolutely necessary to clear this Method of any remaining Difficulty; and added Explanations of all the Tables, and a Correction, p. 49 and 50, which may be applied by the Curious to the Effect of Refraction on the Moon's Distance from a Star, found by Mr. LYONS, or any other Method, on account of the Barometer and Thermometer.

All the Calculations of the EPHEMERIS relating to the Sun and Moon were made from Mr. MAYER's last manuscript Tables, received by the Board of Longitude after his Decease, which have been printed under my Inspection, and published last Year. The Calculations of the Planets were made from Dr. HALLEY's Tables; and the Eclipses of Jupiter's First and Second Satellites from the Tables of Mr. WARGENTIN, published by M. DE LA LANDE in 1759; and those of the Third and Fourth Satellites from Tables of the
same

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same farther improved by Mr. WARGENTIN, and annexed, the first, to the NAUTICAL ALMANAC of 1771, and the other to the CONNOISSANCE DES MOUVEMENTS CELESTES of 1766.

All the Articles of the EPHEMERIS were computed by Two separate Persons, and examined by a Third, except the Moon's Longitude, Latitude, Right Ascension, Declination, Semidiameter, and Parallax, which, for Noon, were computed by One Person, and for Midnight by another, and the Truth of these Calculations ascertained by means of Differences, which, for the Moon's Longitude, were carried as far as the Fourth Order.

To this EPHEMERIS are annexed new Tables of equal Altitudes, more extensive and complete than any extant, computed by Mr. WILLIAM WALES; and a Catalogue of the Places of 387 fix'd Stars, in Right Ascension, Declination, Longitude, and Latitude, adapted to the Beginning of the Year 1760, with their Magnitudes and annual Variations in Right Ascension and Declination, calculated from the late Dr. BRADLEY's Observations by Mr. CHARLES MASON, formerly his Assistant. The Right Ascensions of 15 of these Stars, 13 of which are of the First, and the other 2 of the Second Magnitude, were settled by Comparison with the Sun about the Equinoxes, according to Mr. FLAMSTEAD's Method, by the Mean of 1175 Observations; and these were the radical Points by which the Right Ascensions of all the other Stars were reduced. The Names of these Stars and the Number of Observations made Use of in settling their several Right Ascensions

a

P R E F A C E.

sions are as follows; Aldebaran 21, Capella 56, Rigel 88, α Orion 129, Sirius 136, Castor 19, Procyon 119, Pollux 34, Regulus 63, Spica Virginis 74, Arcturus 70, Antares 36, α Lyræ 129, α Aquilæ 154, α Cygni 47; the Number of Observations in all 1175. In this Catalogue are contained all the Stars as low as the 5th Magnitude inclusive that can ever be eclipsed by the Moon to any Part of the Globe, which are distinguished from the others by Asterisks prefixed. After the Catalogue follow some Memoranda of the extreme Differences of the Right Ascensions of several Stars settled by Observations of different Days, communicated by the same Mr. MASON; whence an Idea may be formed of the Degree of Exactness to which the Places of the heavenly Bodies may be settled, by Observations made with Meridian Instruments constructed by Mr. BIRD, similar to and equally well fixed with those at the Royal Observatory.

To the next EPHEMERIS, viz. that of 1774, will be annexed the Result of 1220 of Dr. BRADLEY's Observations of the Moon, made between SEPT. 13th, 1750, and NOVEM. 2d, 1760, compared with a Set of manuscript Tables improved by Dr. BRADLEY from MAYER's First manuscript Tables.

NEVIL MASKELYNE,
ASTRONOMER ROYAL.

GREENWICH,
JUNE 6th,
1771;

EXPLA-

EXPLANATION of the Characters used in the EPHEMERIS.

The PLANETS, &c.

- | | |
|---|------------|
| ☉ The Sun. | ♂ Mars. |
| ☾ The Moon. | ♃ Jupiter. |
| ☿ Mercury. | ♄ Saturn. |
| ♀ Venus. | |
| ♌ The Moon's, or any other Planet's Ascending Node. | |
| ♍ The Descending Node. | |
| ♊ Conjunction, or Planets situated in the same Longitude. | |
| ♋ Opposition, or Planets situated in opposite Longitudes, or differing 6 Signs from each other. | |

Signs of the Zodiac.

- | | |
|--------------|-------------------|
| S. | S. |
| 0. ♈ Aries. | 6. ♎ Libra. |
| 1. ♉ Taurus. | 7. ♏ Scorpio. |
| 2. ♊ Gemini. | 8. ♐ Sagittarius. |
| 3. ♋ Cancer. | 9. ♑ Capricornus. |
| 4. ♌ Leo. | 10. ♒ Aquarius. |
| 5. ♍ Virgo. | 11. ♓ Pisces. |

ECLIPSES for the YEAR 1773.

March 22. ☉ eclipsed, invisible in *England*:

♌ at 17^h. 21^m, in 2°. 54^m¹/₂. of ♈; ☉'s Latitude 42^m¹/₂. North. This Eclipse will be visible in the eastern Parts of *Europe*, and in several Parts of *Afia*.

April 6. ☉ eclipsed, invisible.

H. M.

Beginning	—	—	—	—	19. 18
Middle	—	—	—	—	20. 40 ¹ / ₂
End of total Darknes	—	—	—	—	22. 3
Digits eclipsed	—	—	8°. 19'		

Sept. 26.

ECLIPSES for the YEAR 1773.

Sept. 16. ☉ eclipsed, invisible :

☿ at 3^h. 49'. in 24°. 1'. of ♊, ☽'s Lat. 41½ S.
At 4^h. 20'¾. ☉ will be centrally eclipsed on the
Meridian in Lat. 45° S.

Sept. 30. ☽ eclipsed, partly visible :

H.M.

Beginning — — — — — 4. 31½

☽ rises — — — — — 5. 54

Middle — — — — — 6. 2½

End — — — — — 7. 33½

Digits eclipsed — — 8°. 17'

Obliquity of Ecliptic. Equat. of Equin. Points.

1773.	•	'	"		"
Jan. 1.	23.	27.	58,9	+	4,7
Apr. 1.	23.	27.	58,7	+	3,3
July 1.	23.	27.	58,5	+	1,8
Oct. 1.	23.	27.	58,3	+	0,2
Dec. 31.	23.	27.	58,1	—	1,4

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.
1	F.	<i>Circumcision.</i>	
2	Sa.		D. H. M.
3	Su.	<i>2d Sunday after Christm.</i>	Full Moon — 8. 9. 25
4	M.		Last Quarter — 15. 10. 10
5	Tu.		New Moon — 22. 9. 19
6	W.	<i>Epiphany.</i>	First Quarter — 30. 7. 53
7	Th.		
8	F.	<i>Lucian.</i>	
9	Sa.		Other Phenomena.
10	Su.	<i>1st Sunday after Epiph.</i>	D.
11	M.		4. ☾ 1 ad ♀ 20 ^h . 9'.
12	Tu.		☾ 2 ad ♀ 20 ^h . 39'.
13	W.	Hil. Camb. Term begins.	9. ☾ 1 ad ♂ 22 ^h . 41'.
14	Th.	Oxford Term begins.	☾ 2 ad ♂ 23 ^h . 38'.
15	F.		10. ☾ 2 ad 4 ^h . 5'.
16	Sa.		☾ 5 Ω 13 ^h . 42'.
17	Su.	<i>2d Sunday after Epiph.</i>	☾ 0 Ω 18 ^h . 14'.
18	M.	<i>2. Charlotte's birth-d. kept.</i>	11. ☾ π Ω 3 ^h . 3'.
19	Tu.	[Prisca.	12. ♀ ♀ Serpent. diff. Lat. 37'.
20	W.	Fabian. In 8 days of St.	☾ υ Ω 23 ^h . 28'.
21	Th.	Agnes. [Hil. 1 ret.	16. ♀ Stationary.
22	F.	Vincent.	17. ☾ 4 ad ζ 6 ^h . 10'.
23	Sa.	Hilary Term begins.	☾ η 9 ^h . 49'.
24	Su.	<i>3d Sunday after Epiph.</i>	☾ θ 14 ^h . 5'.
25	M.	<i>Conversion of St. Paul.</i>	19. ☉ enters ♍ 3 ^h . 32'.
26	Tu.		24. ☾ θ 10 ^h . 26'.
27	W.	From St. Hil. in 15 days,	26. ♀ 0 ♀ diff. Lat. 25'.
28	Th.	[2 ret.	27. ♀ π ♀ diff. Lat. 18'.
29	F.		28. ☾ ζ 5 ^h . 47'.
30	Sa.	<i>K. Charles I. martyrdom.</i>	31. ♀ 0 ♀ diff. Lat. 22'.
31	Su.	<i>4th Sunday after Epiph.</i>	

[2]		J A N U A R Y 1773.											
Days of the Month.	Days of the Week.	Sun's Longitude.				Sun's Right Asc. in Time.		Sun's Declin. South.		Equat. of Time Add.		Diff.	
		S.	D.	M.	S.	H.	M.	S.	D.	M.	S.		M.	S.
1	F.	9.	11.	30.	47	18.	50.	4, 7	22.	58.	0	4. 21, 5	28, 0
2	Sa.	9.	12.	31.	58	18.	54.	29, 4	22.	52.	29	4. 49, 5	27, 5
3	Su.	9.	13.	33.	8	18.	58.	53, 5	22.	46.	31	5. 17, 0	27, 2
4	M.	9.	14.	34.	18	19.	3.	17, 3	22.	40.	5	5. 44, 2	26, 7
5	Tu.	9.	15.	35.	27	19.	7.	40, 7	22.	33.	14	6. 10, 9	26, 2
6	W.	9.	16.	36.	36	19.	12.	3, 5	22.	25.	56	6. 37, 1	25, 7
7	Th.	9.	17.	37.	45	19.	16.	25, 8	22.	18.	11	7. 2, 8	25, 2
8	F.	9.	18.	38.	53	19.	20.	47, 6	22.	10.	0	7. 28, 0	24, 6
9	Sa.	9.	19.	40.	0	19.	25.	8, 9	22.	1.	23	7. 52, 6	24, 1
10	Su.	9.	20.	41.	8	19.	29.	29, 5	21.	52.	19	8. 16, 7	23, 5
11	M.	9.	21.	42.	15	19.	33.	49, 7	21.	42.	51	8. 40, 2	22, 9
12	Tu.	9.	22.	43.	22	19.	38.	9, 1	21.	32.	57	9. 3, 1	22, 2
13	W.	9.	23.	44.	28	19.	42.	28, 0	21.	22.	38	9. 25, 3	21, 7
14	Th.	9.	24.	45.	34	19.	46.	46, 3	21.	11.	55	9. 47, 0	20, 9
15	F.	9.	25.	46.	40	19.	51.	3, 8	21.	0.	47	10. 7, 9	20, 3
16	Sa.	9.	26.	47.	46	19.	55.	20, 8	20.	49.	15	10. 28, 2	19, 6
17	Su.	9.	27.	48.	51	19.	59.	37, 0	20.	37.	19	10. 47, 8	19, 0
18	M.	9.	28.	49.	56	20.	3.	52, 5	20.	25.	0	11. 6, 8	18, 2
19	Tu.	9.	29.	51.	1	20.	8.	7, 3	20.	12.	17	11. 25, 0	17, 4
20	W.	10.	0.	52.	8	20.	12.	21, 4	19.	59.	42	11. 42, 4	16, 7
21	Th.	10.	1.	53.	8	20.	16.	34, 7	19.	45.	44	11. 59, 1	16, 0
22	F.	10.	2.	54.	11	20.	20.	47, 2	19.	31.	54	12. 15, 1	15, 1
23	Sa.	10.	3.	55.	13	20.	24.	59, 0	19.	17.	43	12. 30, 2	14, 4
24	Su.	10.	4.	56.	14	20.	29.	9, 9	19.	3.	11	12. 44, 6	13, 5
25	M.	10.	5.	57.	13	20.	33.	20, 0	18.	48.	17	12. 58, 1	12, 7
26	Tu.	10.	6.	58.	12	20.	37.	29, 3	18.	33.	3	13. 10, 8	11, 9
27	W.	10.	7.	59.	9	20.	41.	37, 8	18.	17.	30	13. 22, 7	11, 1
28	Th.	10.	9.	0.	5	20.	45.	45, 4	18.	1.	36	13. 33, 8	10, 2
29	F.	10.	10.	1.	0	20.	49.	52, 2	17.	45.	23	13. 44, 0	9, 3
30	Sa.	10.	11.	1.	53	20.	53.	58, 2	17.	28.	51	13. 53, 3	8, 5
31	Su.	10.	12.	2.	44	20.	58.	3, 2	17.	12.	1	14. 1, 8	7, 6

JANUARY 1773.

[3]

Days.	Semidia- meter of the Sun.	Time of D ^a passing the Meridian.	Hourly (Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	16. 19. 2	1. 10. 9	2. 32. 9	9. 992615	6. 15. 23
7	16. 19. 1	1. 10. 6	2. 32. 8	9. 992706	6. 15. 4
13	16. 18. 8	1. 10. 1	2. 32. 8	9. 992868	6. 14. 45
19	16. 18. 2	1. 9. 5	2. 32. 6	9. 993121	6. 14. 26
25	16. 17. 5	1. 8. 8	2. 32. 3	9. 993432	6. 14. 7

Eclipses of the SATELLITES of JUPITER.

I. Satellite. Emerfions.		II. Satellite. Emerfions.		III. Satellite. By new Tables.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
1	0. 42. 29	1	22. 42. 24	5	10. 44. 37 I
2	19. 10. 36	5	11. 58. 30	5	14. 0. 32 E
4	13. 38. 45	9	1. 14. 43	12	14. 44. 4 I
6	8. 6. 57	12	14. 31. 5	12	17. 59. 9 E
8	2. 35. 4	16	3. 47. 33	19	18. 44. 8 I
9	21. 3. 18	19	17. 4. 14	19	21. 58. 19 E
11	15. 31. 31	23	6* 20. 53	26	22. 44. 47 I
13	9. 59. 44	26	19. 37. 50	27	1. 58. 3 E
15	4. 28. 4	30	8. 54. 56	IV. Satellite.	
16	22. 56. 23				
18	17. 24. 43				
20	11. 53. 7			11	3. 33. 32 I
22	6* 21. 32			11	7. 41. 46 E
24	0. 50. 9			27	21. 47. 33 I
25	19. 18. 29			28	1. 50. 37 E
27	13. 47. 1				
29	8. 15. 37				
31	2. 44. 11				

[4] J A N U A R Y 1773.

Days.	Heliocentric Longitude.	Heliocentric Latitude.	Geocentric Longitude.	Geocentric Latitude.	Declination.	Pass. over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

M E R C U R Y. Inf. \propto 5^d. 8^h. Gr. Elong. 29^d.

1	2. 19. 4	3. 51 N	9. 21. 2	1. 40 N	20. 10 S	0. 39
7	3. 25. 55	6. 35	9. 13. 41	3. 9	19. 38	23. 33
13	4. 28. 11	6. 50	9. 7. 56	3. 18	19. 57	22. 47
19	5. 24. 54	5. 26	9. 7. 28	2. 32	20. 44	22. 22
25	6. 17. 10	3. 22	9. 11. 3	1. 30	21. 31	22. 14

V E N U S.

1	6. 8. 29	3. 6 N	8. 4. 16	1. 53 N	19. 10 S	21. 21
7	6. 18. 10	2. 49	8. 11. 35	1. 40	20. 33	21. 26
13	6. 27. 49	2. 28	8. 18. 55	1. 25	21. 36	21. 31
19	7. 7. 27	2. 3	8. 26. 17	1. 9	22. 16	21. 37
25	7. 17. 3	1. 34	9. 3. 40	0. 51	22. 34	21. 44

M A R S. \propto 20^d. 6^h.

1	3. 22. 23	1. 40 N	4. 8. 4	3. 56 N	22. 4 N	13. 53
7	3. 25. 7	1. 42	4. 6. 11	4. 9	22. 46	13. 19
13	3. 27. 51	1. 44	4. 3. 59	4. 18	23. 27	12. 44
19	4. 0. 33	1. 46	4. 1. 37	4. 24	24. 7	12. 9
25	4. 3. 15	1. 47	3. 29. 13	4. 26	24. 40	11. 33

J U P I T E R.

1	11. 9. 48	1. 9 S	11. 1. 9	1. 2 S	12. 2 S	3. 24
7	11. 10. 20	1. 10	11. 2. 21	1. 2	11. 36	3. 2
13	11. 10. 53	1. 10	11. 3. 37	1. 1	11. 9	2. 41
19	11. 11. 26	1. 10	11. 4. 55	1. 1	10. 40	2. 20
25	11. 11. 58	1. 11	11. 6. 15	1. 1	10. 10	2. 0

S A T U R N.

1	5. 7. 42	1. 49 N	5. 13. 2	1. 55 N	8. 26 N	16. 7
7	5. 7. 55	1. 49	5. 12. 54	1. 56	8. 31	15. 40
13	5. 8. 8	1. 49	5. 12. 42	1. 58	8. 37	15. 14
19	5. 8. 20	1. 50	5. 12. 26	1. 59	8. 44	14. 47
25	5. 8. 33	1. 50	5. 12. 8	2. 1	8. 53	14. 21

J A N U A R Y 1773.

[5]

Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midnight.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	F.	0. 17. 51. 9	0. 23. 44. 51	0. 11. 28 S	0. 42. 37 S
2	Sa.	0. 29. 38. 39	1. 5. 33. 19	1. 13. 20	1. 43. 16
3	Su.	1. 11. 29. 27	1. 17. 27. 32	2. 12. 10	2. 39. 49
4	M.	1. 23. 28. 20	1. 29. 32. 11	3. 5. 49	3. 29. 54
5	Tu.	2. 5. 39. 32	2. 11. 50. 50	3. 51. 47	4. 11. 11
6	W.	2. 18. 6. 19	2. 24. 26. 2	4. 27. 43	4. 41. 9
7	Th.	3. 0. 50. 12	3. 7. 18. 41	4. 51. 11	4. 57. 35
8	F.	3. 13. 51. 29	3. 20. 28. 23	5. 0. 11	4. 58. 44
9	Sa.	3. 27. 9. 4	4. 3. 53. 18	4. 53. 13	4. 43. 34
10	Su.	4. 10. 40. 42	4. 17. 30. 55	4. 29. 49	4. 12. 6
11	M.	4. 24. 23. 28	5. 1. 18. 7	3. 50. 33	3. 25. 32
12	Tu.	5. 8. 14. 25	5. 15. 12. 10	2. 57. 19	2. 26. 20
13	W.	5. 22. 11. 2	5. 29. 10. 50	1. 53. 3	1. 17. 54
14	Th.	6. 6. 11. 25	6. 13. 12. 44	0. 41. 32 S	0. 4. 25 S
15	F.	6. 20. 14. 34	6. 27. 16. 54	0. 32. 49 N	1. 9. 37 N
16	Sa.	7. 4. 19. 37	7. 11. 22. 43	1. 45. 21	2. 19. 30
17	Su.	7. 18. 25. 57	7. 25. 29. 15	2. 51. 33	3. 20. 55
18	M.	8. 2. 32. 22	8. 9. 35. 4	3. 47. 12	4. 9. 57
19	Tu.	8. 16. 36. 45	8. 23. 37. 21	4. 28. 49	4. 43. 39
20	W.	9. 0. 36. 4	9. 7. 32. 50	4. 54. 5	5. 0. 8
21	Th.	9. 14. 26. 47	9. 21. 17. 40	5. 1. 44	4. 58. 58
22	F.	9. 28. 4. 53	10. 4. 48. 7	4. 51. 58	4. 40. 57
23	Sa.	10. 11. 26. 59	10. 18. 1. 16	4. 26. 11	4. 8. 4
24	Su.	10. 24. 30. 47	11. 0. 55. 34	3. 46. 50	3. 22. 57
25	M.	11. 7. 15. 30	11. 13. 30. 53	2. 56. 48	2. 28. 48
26	Tu.	11. 19. 41. 54	11. 25. 48. 56	1. 59. 17	1. 28. 39
27	W.	0. 1. 52. 20	0. 7. 52. 42	0. 57. 18 N	0. 25. 29 N
28	Th.	0. 13. 50. 27	0. 19. 46. 18	0. 6. 22 S	0. 38. 1 S
29	F.	0. 25. 40. 48	1. 1. 34. 43	1. 9. 12	1. 39. 32
30	Sa.	1. 7. 28. 40	1. 13. 23. 24	2. 8. 58	2. 36. 53
31	Su.	1. 19. 19. 32	1. 25. 17. 49	3. 3. 18	3. 27. 52

[6] J A N U A R Y 1773.						
Days of the Month.	Days of the Week.	D's Age.	D's Pass- age over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's De- clin. at Noon.
			H. M.	D. M.	D. M.	D. M.
1	F.	10	6. 27	16. 32	22. 15	6. 50 N
2	Sa.	11	7. 10	28. 0	33. 50	10. 13
3	Su.	12	7. 55	39. 45	45. 46	13. 12
4	M.	13	8. 41	51. 53	58. 7	15. 40
5	Tu.	14	9. 29	64. 28	70. 55	17. 28
6	W.	15	10. 19	77. 29	84. 9	18. 29
7	Th.	16	11. 10	90. 53	97. 41	18. 37
8	F.	17	12. 2	104. 31	111. 22	17. 46
9	Sa.	18	12. 55	118. 13	125. 4	15. 57
10	Su.	19	13. 47	131. 53	138. 40	13. 15
11	M.	20	14. 38	145. 24	152. 6	9. 47
12	Tu.	21	15. 28	158. 47	165. 26	5. 45
13	W.	22	16. 19	172. 5	178. 44	1. 22 N
14	Th.	23	17. 10	185. 24	192. 7	3. 6 S
15	F.	24	18. 3	198. 54	205. 44	7. 25
16	Sa.	25	18. 57	212. 40	219. 41	11. 19
17	Su.	26	19. 52	226. 47	233. 59	14. 35
18	M.	27	20. 48	241. 15	248. 34	16. 59
19	Tu.	28	21. 45	255. 56	263. 18	18. 20
20	W.	29	22. 41	270. 38	277. 55	18. 34
21	Th.	30	23. 35	285. 7	292. 12	17. 41
22	F.	1	♂ 0. 26	299. 10	305. 59	15. 48
23	Sa.	2	0. 26	312. 39	319. 10	13. 6
24	Su.	3	1. 15	325. 32	331. 46	9. 48
25	M.	4	2. 2	337. 52	343. 51	6. 7
26	Tu.	5	2. 46	349. 45	355. 34	2. 15 S
27	W.	6	3. 30	1. 20	7. 4	1. 37 N
28	Th.	7	4. 13	12. 47	18. 29	5. 22
29	F.	8	4. 56	24. 14	30. 0	8. 52
30	Sa.	9	5. 40	35. 50	41. 44	11. 59
31	Su.	10	6. 25	47. 44	53. 49	14. 38

JANUARY 1773.

[7]

Days of the Month.	Days of the Week.	Semid. γ at Noon.	Semid. γ at Mid-night.	Hor. Par. γ at Noon.	Hor. Par. γ at Midnight.	Propor. Lo-ear. at Noon.	Propor. Lo-ear. at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	F.	14. 50	14. 49	54. 26	54. 24	5194	5197
2	Sa.	14. 49	14. 50	54. 24	54. 28	5197	5191
3	Su.	14. 52	14. 54	54. 33	54. 40	5185	5175
4	M.	14. 56	15. 0	54. 50	55. 2	5162	5146
5	Tu.	15. 4	15. 8	55. 16	55. 31	5128	5108
6	W.	15. 12	15. 17	55. 47	56. 4	5087	5065
7	Th.	15. 21	15. 26	56. 21	56. 39	5044	5021
8	F.	15. 31	15. 36	56. 57	57. 14	4998	4976
9	Sa.	15. 41	15. 45	57. 32	57. 48	4953	4933
10	Su.	15. 49	15. 53	58. 3	58. 17	4915	4897
11	M.	15. 56	15. 59	58. 30	58. 41	4881	4867
12	Tu.	16. 2	16. 5	58. 51	59. 0	4855	4844
13	W.	16. 7	16. 8	59. 8	59. 14	4834	4827
14	Th.	16. 10	16. 11	59. 18	59. 22	4822	4817
15	F.	16. 11	16. 12	59. 25	59. 26	4813	4812
16	Sa.	16. 12	16. 12	59. 27	59. 26	4811	4812
17	Su.	16. 11	16. 10	59. 24	59. 20	4815	4820
18	M.	16. 9	16. 7	59. 16	59. 9	4824	4833
19	Tu.	16. 5	16. 2	59. 1	58. 52	4843	4854
20	W.	15. 59	15. 56	58. 41	58. 28	4867	4883
21	Th.	15. 52	15. 48	58. 14	57. 59	4901	4919
22	F.	15. 43	15. 39	57. 42	57. 25	4941	4962
23	Sa.	15. 34	15. 29	57. 6	56. 48	4986	5009
24	Su.	15. 23	15. 19	56. 29	56. 11	5033	5056
25	M.	15. 14	15. 9	55. 53	55. 36	5080	5102
26	Tu.	15. 5	15. 1	55. 20	55. 6	5123	5141
27	W.	14. 58	14. 55	54. 54	54. 43	5157	5171
28	Th.	14. 52	14. 51	54. 35	54. 29	5182	5190
29	F.	14. 50	14. 49	54. 25	54. 24	5195	5197
30	Sa.	14. 50	14. 51	54. 26	54. 29	5194	5190
31	Su.	14. 53	14. 55	54. 36	54. 45	5181	5169

Distances of J's Center from Stars, and from ☉ east of Mer.

No.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Aldeba- ran.	48. 58. 38	47. 29. 53	46. 1. 10	44. 32. 28
2		37. 9. 2	35. 40. 16	34. 11. 27	32. 42. 35
3		25. 17. 9	23. 47. 49	22. 18. 24	20. 48. 53
4		13. 19. 46			
4	Pollux.	57. 21. 37	55. 53. 36	54. 25. 31	52. 57. 20
5		45. 35. 30	44. 7. 2	42. 38. 33	41. 10. 4
6		33. 49. 1			
6	Regulus.	68. 41. 1	67. 7. 2	65. 32. 46	63. 58. 16
7		56. 1. 56	54. 25. 56	52. 49. 41	51. 13. 12
8		43. 7. 8	41. 29. 14	39. 51. 7	38. 12. 49
9		29. 58. 37	28. 19. 21	26. 39. 59	25. 0. 33
10		16. 44. 15			
10	Spica 𐌆	69. 54. 25	68. 12. 26	66. 30. 17	64. 47. 58
11		56. 13. 58	54. 30. 41	52. 47. 17	51. 3. 44
12		42. 24. 17	40. 40. 4	38. 55. 46	37. 11. 24
13		28. 28. 38	26. 43. 58	24. 59. 18	23. 14. 38
14		14. 32. 43			
14	Antares.	60. 26. 39	58. 42. 34	56. 58. 30	55. 14. 27
15		46. 35. 1	44. 51. 23	43. 7. 53	41. 24. 32
13	The Sun.	121. 32. 18	119. 55. 17	118. 18. 11	116. 41. 1
14		108. 34. 4	106. 56. 28	105. 18. 49	103. 41. 8
15		95. 32. 5	93. 54. 11	92. 16. 15	90. 38. 18
16		82. 28. 22	80. 50. 21	79. 12. 20	77. 34. 19
17		69. 24. 31	67. 46. 37	66. 8. 46	64. 30. 57
18		56. 22. 34	54. 45. 4	53. 7. 39	51. 30. 20
19	α Arietis.	43. 25. 25	41. 48. 48	40. 12. 20	38. 36. 1
24		69. 38. 32	68. 4. 14	66. 30. 17	64. 56. 41
25		57. 13. 52	55. 42. 20	54. 11. 11	52. 40. 25
26	Aldeba- ran.	45. 12. 28	43. 44. 8	42. 16. 14	40. 48. 48
27		64. 58. 44	63. 28. 4	61. 57. 35	60. 27. 16
28		52. 58. 5	51. 28. 39	49. 59. 20	48. 30. 7
29		41. 5. 23	39. 36. 38	38. 7. 55	36. 39. 13
30		29. 15. 55	27. 47. 13	26. 18. 29	24. 49. 43
31	Pollux.	17. 25. 4			
31		61. 26. 12	59. 59. 14	58. 32. 14	57. 5. 10

J A N U A R Y 1773.

[9]

Distances of γ 's Center from Stars, and from \odot east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Aldebaran.	43. 3. 48	41. 35. 8	40. 6. 27	38. 37. 46
2		31. 13. 39	29. 44. 39	28. 15. 33	26. 46. 24
3		19. 19. 16	17. 49. 33	15. 19. 44	14. 49. 48
4	Pollux.	51. 29. 4	50. 0. 44	48. 32. 22	47. 3. 57
5		39. 41. 38	38. 13. 15	36. 45. 0	35. 16. 57
6	Regulus.	62. 23. 30	60. 48. 29	59. 13. 13	57. 37. 42
7		49. 36. 28	47. 59. 29	46. 22. 15	44. 44. 48
8		36. 34. 19	34. 55. 38	33. 16. 47	31. 37. 46
9		23. 21. 6	21. 41. 40	20. 2. 19	18. 23. 9
10	Spica π	63. 5. 29	61. 22. 50	59. 40. 2	57. 57. 5
11		49. 20. 4	47. 36. 17	45. 52. 23	44. 8. 23
12		35. 26. 57	33. 42. 26	31. 57. 52	30. 13. 16
13		21. 30. 2	19. 45. 31	18. 1. 7	16. 16. 51
14	Antares.	53. 30. 26	51. 46. 28	50. 2. 34	48. 18. 45
15		39. 41. 18			
13	The Sun.	115. 3. 46	113. 26. 26	111. 49. 3	110. 11. 36
14		102. 3. 23	100. 25. 36	98. 47. 48	97. 9. 57
15		89. 0. 20	87. 22. 22	85. 44. 22	84. 6. 22
16		75. 56. 19	74. 18. 27	72. 40. 22	71. 2. 26
17		62. 53. 10	61. 15. 26	59. 37. 45	58. 0. 8
18		49. 53. 6	48. 16. 0	46. 39. 1	45. 2. 9
24	α Arietis.	63. 23. 25	61. 50. 30	60. 17. 56	58. 45. 43
25		51. 10. 1	49. 49. 0	48. 10. 25	46. 41. 14
26		39. 21. 49			
26	Aldebaran.	71. 3. 16	69. 31. 51	68. 0. 37	66. 29. 35
27		58. 57. 7	57. 27. 9	55. 57. 19	54. 27. 38
28		47. 1. 1	45. 32. 0	44. 3. 4	42. 34. 11
29		35. 10. 33	33. 41. 54	32. 13. 15	30. 44. 35
30		23. 20. 54	21. 52. 2	20. 23. 7	18. 54. 8
31	Pollux.	55. 38. 2	54. 10. 51	52. 43. 38	51. 16. 22

[10] J A N U A R Y 1773.					
Distances of Moon's Center from ☉, and from Stars west of her.					
Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	96. 20. 22	97. 41. 10	99. 1. 56	100. 22. 41
2		107. 6. 27	108. 27. 17	109. 48. 10	111. 9. 7
3		117. 54. 58	119. 16. 24	120. 37. 57	
1	♏ Aquilæ.	80. 45. 55	82. 6. 36	83. 27. 19	84. 48. 5
2	α Pegasi.	43. 44. 48	45. 5. 21	46. 26. 20	47. 47. 45
3		54. 40. 29	56. 4. 2	57. 27. 53	58. 52. 2
4		65. 57. 18	67. 23. 12	68. 49. 22	70. 15. 49
5		77. 32. 0			
5	α Arietis.	33. 58. 55	35. 25. 25	36. 52. 31	38. 20. 11
6		45. 46. 24	47. 17. 3	48. 48. 5	50. 19. 32
7		58. 2. 37			
7	Aldebaran.	24. 7. 15	25. 43. 26	27. 19. 54	28. 56. 39
8		37. 4. 32	38. 42. 55	40. 21. 33	42. 0. 27
9		50. 18. 35	51. 58. 55	53. 39. 29	55. 20. 16
10		63. 47. 24	65. 29. 26	67. 11. 39	68. 54. 4
11	Pollux.	35. 48. 47	37. 26. 6	39. 4. 1	40. 42. 24
12		49. 0. 51	50. 41. 36	52. 22. 36	54. 3. 52
13	Regulus.	25. 36. 17	27. 20. 3	29. 4. 2	30. 48. 13
14		39. 31. 25	41. 16. 25	43. 1. 31	44. 46. 42
15		53. 33. 30	55. 19. 1	57. 4. 34	58. 50. 10
16		67. 38. 29			
16	Spica ♏	14. 9. 48	15. 54. 18	17. 39. 1	19. 23. 55
17		28. 10. 25	29. 55. 54	31. 41. 25	33. 26. 56
18		42. 14. 28	43. 59. 55	45. 45. 18	47. 30. 38
19		56. 16. 5	58. 0. 58	59. 45. 45	61. 30. 26
20		70. 11. 50	71. 55. 46	73. 39. 32	75. 23. 9
21		83. 58. 31			
26	The Sun.	42. 45. 56	44. 10. 3	45. 33. 59	46. 57. 43
27		53. 53. 32	55. 16. 10	56. 38. 39	58. 0. 58
28		64. 50. 22	66. 51. 53	67. 33. 18	68. 54. 37
29		75. 39. 59	77. 0. 54	78. 21. 47	79. 42. 39
30		86. 26. 56	87. 47. 52	89. 8. 51	90. 29. 53
31		97. 16. 11	98. 37. 45	99. 59. 27	101. 21. 17
30	α Pegasi.	51. 3. 50	52. 25. 56	53. 48. 19	55. 10. 59
31		62. 8. 19	63. 32. 34	64. 57. 3	66. 21. 48
F. 1.		73. 29. 2			

J A N U A R Y 1773.

[11]

Distances of J's Center from ☉, and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	101. 43. 25	103. 4. 8	104. 24. 53	105. 45. 39
2		112. 30. 7	113. 51. 12	115. 12. 22	116. 33. 37
1	α Aquilæ.	86. 8. 52			
1	α Pegasi.	38. 27. 46	39. 46. 12	41. 5. 12	42. 24. 45
2		49. 9. 36	50. 31. 47	51. 54. 20	53. 17. 14
3		60. 16. 31	61. 41. 17	63. 6. 20	64. 31. 40
4		71. 42. 32	73. 9. 31	74. 36. 45	76. 4. 15
5	α Arietis.	39. 48. 25	41. 17. 11	42. 46. 26	44. 16. 10
6		51. 51. 25	53. 23. 41	54. 56. 18	56. 29. 17
7	Aldebaran.	30. 33. 41	32. 10. 59	33. 48. 34	35. 26. 25
8		43. 39. 36	45. 18. 59	46. 58. 37	48. 38. 29
9		57. 1. 17	58. 42. 30	60. 23. 56	62. 5. 34
10		70. 36. 40			
10	Pollux.	29. 27. 4	31. 1. 12	32. 36. 15	34. 12. 8
11		42. 21. 20	44. 0. 39	45. 40. 22	47. 20. 20
12		55. 45. 22			
12	Regulus.	18. 44. 25	20. 26. 47	22. 9. 35	23. 52. 46
13		32. 32. 35	34. 17. 6	36. 1. 45	37. 46. 30
14		46. 31. 57	48. 17. 15	50. 2. 37	51. 48. 2
15		60. 35. 47	62. 21. 26	64. 7. 6	65. 52. 47
16	Spica ♏	21. 8. 59	22. 54. 12	24. 39. 31	26. 24. 55
17		35. 12. 29	36. 58. 1	38. 43. 31	40. 29. 0
18		49. 15. 54	51. 1. 4	52. 46. 9	54. 31. 0
19		63. 15. 0	64. 59. 24	66. 43. 41	68. 27. 42
20		77. 5. 37	78. 40. 54	80. 32. 59	82. 15. 51
25	The Sun.	48. 21. 15	49. 44. 35	50. 57. 5	52. 21. 30
26		59. 23. 8	60. 45. 8	62. 7. 45	63. 30. 44
27		70. 15. 51	71. 36. 59	72. 58. 2	74. 19. 0
28		81. 3. 30	82. 24. 20	83. 45. 11	85. 6. 3
29		91. 50. 59	93. 12. 9	94. 33. 24	96. 51. 45
30		102. 43. 15	104. 5. 21	105. 27. 38	106. 52. 5
31		56. 33. 55	57. 57. 8	59. 20. 36	60. 44. 20
30	α Pegasi.	67. 46. 47	69. 12. 0	70. 37. 21	72. 5. 8
31					

Configurations of the SATELLITES of JUPITER
at 6 o' th' Clock in the Evening.

1			1.	⊙	2.
2		4.	2.	⊙	3 6 1
3		2 6 1		⊙	4 .3
4				⊙	1. 3. 4
5	3 6		.1	⊙	2.
6	1 6	3 .2		⊙	4
7		.3		⊙	2. 1 4.
8		.3 1.		⊙	2. 4.
9		2.		⊙	3. 1 4.
10		2 6 1		⊙	4. 1. 7
11			4.	⊙	1. 2 3.
12		4.	.1	⊙	2 6 3
13	4.	2. 3.		⊙	1.
14	4.	3.		⊙	2. 1. 0
15	.4	.3	1.	⊙	2.
16	.4		2.	⊙	.3 .1
17		.4 1.	.2	⊙	.3
18		.4		⊙	1. 2 3.
19	4. 0		.1	⊙	2. 3.
20		2. 3.		⊙	1. 4.
21	1. 0	3.	.2	⊙	4.
22	1 6	.3		⊙	.2 4.
23	2 6		.3	⊙	.1 4.
24		.2 1.		⊙	.3 4.
25				⊙	2. 1 3. 4.
26		.1		⊙	.2 .3 4.
27		2. 3.		⊙	4 6 1
28		3.	4.	⊙	2. 1
29	1 6	4. .3		⊙	.2
30	2 6 4.		.3	⊙	.1
31	4.		1. .2	⊙	.3

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.
			D. H. M. Full Moon — 6. 23. 10 Last Quarter — 13. 18. 6 New Moon — 21. 0. 34
1	M.		Other Phenomena.
2	Tu.	Purification of V. Mary.	D.
3	W.	Blas. On mor. of Purif.	1. ♀ π ♄ diff. Lat. 60'.
4	Th.	[3 ret.	♄ 1 ad ♄ 8 4 ^h . 42'.
5	F.	Agatha.	♄ 2 ad ♄ 8 5 ^h . 13'.
6	Sa.		2. ♂ 2 ad ♄ 8 diff. Lat. 57'.
7	Su.	Septuagesima-Sunday.	3. ♄ λ diff. Lat. 37'.
8	M.		5. ♄ χ ♄ diff. Lat. 42'.
9	Tu.	In 8 days of Purif. 4	6. ♄ 1 ad ♄ 8 7 ^h . 23'.
10	W.	[ret.	♄ 2 ad ♄ 8 Im. 6 ^h .
11	Th.		35'. * 3'. S. of ♄'s
12	F.	Term ends.	cent. Em 7 ^h . 36'.
13	Sa.		* 6'. S. of ♄'s cent.
14	Su.	Sexagesima-Sunday. Va-	♄ 2 ad 12 ^h . 42'.
15	M.	[lentine.	♄ 5 ♄ 22 ^h . 7'.
16	Tu.		7. ♄ 0 ♄ 2 ^h . 34'.
17	W.		♄ π ♄ 11 ^h . 10'.
18	Th.		12. ♄ κ ♄ 0 ^h . 21'.
19	F.		13. ♄ 4 ad ♄ 11 ^h . 7'.
20	Sa.		♄ γ ♄ 11 ^h . 17'.
			♄ η ♄ 15 ^h . 7'.
			♄ θ ♄ 19 ^h . 24'.
21	Su.	Quinquagesima or Shrove-	14. ♄ φ Serpent. 10 ^h . 30'.
22	M.	[Sunday.	17. ♄ enters ♄ at 18 ^h . 23'.
23	Tu.		18. ♄ β ♄ 12 ^h . 18'.
24	W.	St. Matthias, Ash-Wed-	22. ♄ γ ♄ diff. Lat. 35'.
25	Th.	[nesday.	23. ♄ δ ♄ diff. Lat. 32'.
26	F.		24. ♄ ζ ♄ 13 ^h . 47'.
27	Sa.		27. ♄ 0 ♄ diff. Lat. 1'.
			28. ♂ Stationary.
28	Su.	1 st Sunday in Lent.	♄ 1 ad ♄ 8 13 ^h . 1'.
			♄ 2 ad ♄ 8 13 ^h . 32'.

[14] FEBRUARY 1773.						
Days of the Month.	Days of the Week.	Sun's Longitude.	Sun's Right Asc. in Time.	Sun's Declin. South.	Equat. of Time. Add.	Diff.
		S. D. M. S.	H. M. S.	D. M. S.	M. S.	S.
1	M.	10. 13. 3. 34	21. 2. 7. 4	16. 54. 53	14. 9. 4	6, 8
2	Tu.	10. 14. 4. 23	21. 6. 10. 8	16. 37. 27	14. 16. 2	6, 0
3	W.	10. 15. 5. 9	21. 10. 13. 3	16. 19. 44	14. 22. 2	5, 1
4	Th.	10. 16. 5. 55	21. 14. 15. 0	16. 1. 44	14. 27. 3	4, 3
5	F.	10. 17. 6. 39	21. 18. 15. 9	15. 43. 26	14. 31. 6	3, 4
6	Sa.	10. 18. 7. 21	21. 22. 15. 9	15. 24. 56	14. 35. 0	2, 7
7	Su.	10. 19. 8. 2	21. 26. 15. 1	15. 6. 9	14. 37. 7	1, 9
8	M.	10. 20. 8. 41	21. 30. 13. 5	14. 47. 6	14. 39. 6	1, 1
9	Tu.	10. 21. 9. 20	21. 34. 11. 2	14. 27. 48	14. 40. 7	0, 3
10	W.	10. 22. 9. 57	21. 38. 8. 1	14. 8. 15	14. 41. 0	0, 5
11	Th.	10. 23. 10. 32	21. 42. 4. 2	13. 48. 29	14. 40. 5	1, 2
12	F.	10. 24. 11. 7	21. 45. 59. 5	13. 28. 29	14. 39. 3	1, 9
13	Sa.	10. 25. 11. 40	21. 49. 54. 1	13. 8. 16	14. 37. 4	2, 7
14	Su.	10. 26. 12. 12	21. 53. 48. 0	12. 47. 50	14. 34. 7	3, 3
15	M.	10. 27. 12. 43	21. 57. 41. 2	12. 27. 11	14. 31. 4	4, 1
16	Tu.	10. 28. 13. 12	22. 1. 33. 7	12. 6. 21	14. 27. 3	4, 7
17	W.	10. 29. 13. 41	22. 5. 25. 5	11. 45. 19	14. 22. 6	5, 4
18	Th.	11. 0. 14. 8	22. 9. 16. 6	11. 24. 6	14. 17. 2	6, 2
19	F.	11. 1. 14. 33	22. 13. 7. 0	11. 2. 42	14. 11. 0	6, 8
20	Sa.	11. 2. 14. 57	22. 16. 56. 8	10. 41. 7	14. 4. 2	7, 4
21	Su.	11. 3. 15. 19	22. 20. 45. 9	10. 19. 23	13. 56. 8	8, 0
22	M.	11. 4. 15. 40	22. 24. 34. 4	9. 57. 30	13. 48. 8	8, 7
23	Tu.	11. 5. 15. 59	22. 28. 22. 3	9. 35. 27	13. 40. 1	9, 3
24	W.	11. 6. 16. 15	22. 32. 9. 5	9. 13. 15	13. 30. 8	9, 8
25	Th.	11. 7. 16. 30	22. 35. 56. 2	8. 50. 56	13. 21. 0	10, 5
26	F.	11. 8. 16. 43	22. 39. 42. 2	8. 28. 29	13. 10. 5	11, 0
27	Sa.	11. 9. 16. 54	22. 43. 27. 7	8. 5. 55	12. 59. 5	11, 6
28	Su.	11. 10. 17. 3	22. 47. 12. 7	7. 43. 13	12. 47. 9	12, 1

F E B R U A R Y 1773. [15]

Days of the Month.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	16. 16, 4	1. 8, 0	2. 32, 1	9. 993864	6. 13. 45
7	16. 15, 4	1. 7, 4	2. 31, 8	9. 994314	6. 13. 26
13	16. 14, 2	1. 6, 7	2. 31, 4	9. 994850	6. 13. 7
19	16. 13, 0	1. 6, 1	2. 30, 9	9. 995444	6. 12. 48
25	16. 11, 6	1. 5, 6	2. 30, 4	9. 996067	6. 12. 29

**The Eclipses of JUPITER's Satellites will not be visible
this Month, JUPITER being too near the SUN.**

[16] FEBRUARY 1773.

Days.	Heliocentric Longitude.	Heliocentric Latitude.	Geocentric Longitude.	Geocentric Latitude.	Declination.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

MERCURY.

1	7. 9. 28	0. 47 N	9. 18. 7	0. 20 N	21. 54 S	22. 17
7	7. 26. 45	1. 20 S	9. 25. 33	0. 32 S	21. 35	22. 26
13	8. 13. 18	3. 14	10. 3. 50	1. 15	20. 32	22. 38
19	8. 29. 54	4. 53	10. 12. 47	1. 46	18. 41	22. 52
25	9. 17. 17	6. 9	10. 22. 20	2. 5	16. 3	23. 8

VENUS.

1	7. 28. 13	0. 57 N	9. 12. 18	0. 30 N	22. 24 S	21. 52
7	8. 7. 45	0. 24	9. 19. 42	0. 13	21. 49	22. 0
13	8. 17. 16	0. 10 S	9. 27. 6	0. 5 S	20. 50	22. 8
19	8. 26. 47	0. 43	10. 4. 31	0. 21	19. 30	22. 16
25	9. 6. 16	1. 15	10. 11. 56	0. 37	17. 49	22. 24

MARS.

1	4. 6. 23	1. 49 N	3. 26. 39	4. 24 N	25. 10 N	10. 54
7	4. 9. 3	1. 50	3. 24. 47	4. 18	25. 25	10. 22
13	4. 11. 43	1. 50	3. 23. 19	4. 10	25. 33	9. 52
19	4. 14. 28	1. 51	3. 22. 19	3. 59	25. 33	9. 24
25	4. 17. 0	1. 51	3. 21. 47	3. 48	25. 27	8. 59

JUPITER.

1	11. 12. 36	1. 11 S	11. 7. 50	1. 0 S	9. 34 S	1. 37
7	11. 13. 9	1. 11	11. 9. 14	1. 0	9. 3	1. 18
13	11. 13. 42	1. 12	11. 10. 39	1. 0	8. 31	1. 0
19	11. 14. 14	1. 12	11. 12. 5	1. 0	7. 58	0. 42
25	11. 14. 47	1. 12	11. 13. 32	1. 0	7. 25	0. 25

SATURN. δ 27^d. 10^h.

1	5. 8. 48	1. 50 N	5. 11. 42	2. 2 N	9. 4 N	13. 51
7	5. 9. 0	1. 51	5. 11. 18	2. 3	9. 14	13. 26
13	5. 9. 13	1. 51	5. 10. 51	2. 4	9. 25	13. 1
19	5. 9. 25	1. 52	5. 10. 24	2. 5	9. 36	12. 36
25	5. 9. 38	1. 52	5. 9. 55	2. 5	9. 48	12. 11

F E B R U A R Y 1773. [17]

Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midnight.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	M.	2. 1. 18. 49	2. 7. 23. 13	3. 50. 18 S	4. 10. 21 S
2	Tu.	2. 13. 31. 36	2. 19. 44. 24	4. 27. 45	4. 42. 11
3	W.	2. 26. 2. 3	3. 2. 24. 54	4. 53. 23	5. 1. 8
4	Th.	3. 8. 53. 16	3. 15. 27. 6	5. 5. 6	5. 5. 10
5	F.	3. 22. 6. 29	3. 28. 51. 19	5. 1. 6	4. 52. 50
6	Sa.	4. 5. 41. 15	4. 12. 36. 1	4. 40. 16	4. 23. 27
7	Su.	4. 19. 35. 7	4. 26. 37. 56	4. 2. 30	3. 37. 41
8	M.	5. 3. 43. 50	5. 10. 52. 16	3. 9. 16	2. 37. 43
9	Tu.	5. 18. 2. 25	5. 25. 13. 43	2. 3. 26	1. 27. 6
10	W.	6. 2. 25. 32	6. 9. 37. 14	0. 49. 17 S	0. 10. 39 S
11	Th.	6. 16. 48. 20	6. 23. 58. 30	0. 28. 9 N	1. 6. 27 N
12	F.	7. 1. 7. 16	7. 8. 14. 27	1. 43. 35	2. 18. 59
13	Sa.	7. 15. 19. 48	7. 22. 23. 10	2. 52. 8	3. 22. 28
14	Su.	7. 29. 24. 21	8. 6. 23. 20	3. 49. 34	4. 13. 7
15	M.	8. 13. 20. 0	8. 20. 14. 11	4. 32. 48	4. 48. 24
16	Tu.	8. 27. 5. 55	9. 3. 54. 59	4. 59. 43	5. 6. 44
17	W.	9. 10. 41. 23	9. 17. 24. 48	5. 9. 22	5. 7. 44
18	Th.	9. 24. 5. 18	10. 0. 42. 39	5. 1. 55	4. 52. 4
19	F.	10. 7. 16. 47	10. 13. 47. 34	4. 38. 24	4. 21. 15
20	Sa.	10. 20. 14. 53	10. 26. 38. 42	4. 0. 48	3. 37. 33
21	Su.	11. 2. 58. 56	11. 9. 15. 39	3. 11. 45	2. 43. 50
22	M.	11. 15. 28. 55	11. 21. 38. 50	2. 14. 8	1. 43. 8
23	Tu.	11. 27. 45. 32	0. 3. 49. 15	1. 11. 8	0. 38. 32 N
24	W.	0. 9. 50. 22	0. 15. 49. 40	0. 5. 44 N	0. 26. 57 S
25	Th.	0. 21. 45. 51	0. 27. 41. 7	0. 59. 14 S	1. 30. 43
26	F.	1. 3. 35. 23	1. 9. 29. 9	2. 1. 13	2. 30. 20
27	Sa.	1. 15. 22. 59	1. 21. 17. 33	2. 57. 57	3. 23. 39
28	Su.	1. 27. 13. 23	2. 3. 11. 10	3. 47. 19	4. 8. 38

[18] FEBRUARY 1773.

Days of the Month.	Days of the Week.	D's Age.	D's Passage over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's Declination at Noon.	D's Declination at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	M.	11	7. 12	60. 0	66. 18	16. 41 N	17. 27 N
2	Tu.	12	8. 1	72. 42	79. 13	18. 1	18. 23
3	W.	13	8. 52	85. 50	92. 32	18. 31	18. 25
4	Th.	14	9. 44	99. 19	106. 9	18. 6	17. 31
5	F.	15	10. 37	113. 2	119. 57	16. 42	15. 38
6	Sa.	16	11. 30	126. 53	133. 48	14. 20	12. 50
7	Su.	17	12. 23	140. 43	147. 37	11. 7	9. 14
8	M.	18	13. 16	154. 29	161. 20	7. 13	5. 4
9	Tu.	19	14. 9	168. 12	175. 3	2. 50 N	0. 34 N
10	W.	20	15. 1	181. 54	188. 46	1. 43 S	3. 59 S
11	Th.	21	15. 55	195. 40	202. 36	6. 11	8. 17
12	F.	22	16. 49	209. 35	216. 38	10. 15	12. 4
13	Sa.	23	17. 44	223. 43	230. 52	13. 42	15. 7
14	Su.	24	18. 40	238. 3	245. 17	16. 18	17. 14
15	M.	25	19. 36	252. 31	259. 45	17. 55	18. 19
16	Tu.	26	20. 32	266. 57	274. 7	18. 26	18. 18
17	W.	27	21. 25	281. 12	288. 11	17. 54	17. 15
18	Th.	28	22. 17	295. 4	301. 50	16. 22	15. 16
19	F.	29	23. 7	308. 28	314. 59	13. 59	12. 32
20	Sa.	30	23. 54	321. 22	327. 37	10. 56	9. 14
21	Su.	1	♂	333. 46	339. 49	7. 26	5. 35
22	M.	2	0. 40	345. 46	351. 39	3. 40 S	1. 44 S
23	Tu.	3	1. 24	357. 28	3. 15	0. 12 N	2. 7 N
24	W.	4	2. 8	9. 0	14. 44	3. 59	5. 49
25	Th.	5	2. 51	20. 29	26. 15	7. 34	9. 15
26	F.	6	3. 35	32. 3	37. 54	10. 50	12. 17
27	Sa.	7	4. 20	43. 48	49. 47	13. 38	14. 50
28	Su.	8	5. 6	55. 50	61. 59	15. 52	16. 45

FEBRUARY 1773.

[19]

Days of the Month.	Days of the Week.	Semidr. \gg at Noon.	Semidr. \gg at Mid-night.	Hor. Par. \gg at Noon.	Hor. Par. \gg at Midnight.	Propor. Log. at Noon.	Propor. Log. at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	M.	14. 58	15. 2	54. 57	55. 11	5153	5134
2	Tu.	15. 7	15. 11	55. 27	55. 45	5114	5090
3	W.	15. 17	15. 23	56. 5	56. 26	5064	5037
4	Th.	15. 28	15. 35	56. 47	57. 10	5010	4981
5	F.	15. 41	15. 47	57. 33	57. 55	4952	4924
6	Sa.	15. 53	15. 58	58. 17	58. 36	4897	4874
7	Su.	16. 4	16. 8	58. 56	59. 12	4849	4830
8	M.	16. 12	16. 15	59. 26	59. 38	4812	4798
9	Tu.	16. 17	16. 19	59. 47	59. 53	4787	4779
10	W.	16. 20	16. 20	59. 56	59. 57	4776	4775
11	Th.	16. 20	16. 19	59. 55	59. 52	4777	4781
12	F.	16. 17	16. 14	59. 46	59. 39	4788	4797
13	Sa.	16. 13	16. 10	59. 30	59. 20	4808	4820
14	Su.	16. 7	16. 4	59. 9	58. 57	4833	4848
15	M.	16. 0	15. 57	58. 45	58. 32	4863	4878
16	Tu.	15. 53	15. 49	58. 18	58. 4	4896	4913
17	W.	15. 46	15. 42	57. 50	57. 36	4931	4949
18	Th.	15. 38	15. 34	57. 21	57. 6	4967	4986
19	F.	15. 29	15. 25	56. 51	56. 36	5003	5025
20	Sa.	15. 21	15. 17	56. 21	56. 5	5044	5064
21	Su.	15. 13	15. 9	55. 51	55. 37	5082	5100
22	M.	15. 6	15. 2	55. 23	55. 10	5119	5136
23	Tu.	14. 59	14. 56	54. 58	54. 48	5152	5165
24	W.	14. 53	14. 51	54. 38	54. 30	5178	5189
25	Th.	14. 49	14. 48	54. 24	54. 19	5197	5203
26	F.	14. 47	14. 47	54. 17	54. 17	5206	5206
27	Sa.	14. 48	14. 49	54. 19	54. 24	5203	5197
28	Su.	14. 51	14. 54	54. 31	54. 41	5187	5174

Distances of ☽'s Center from Stars, and from ☉ east of her.

Days	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1 2	Pollux.	49. 49. 3 38. 9. 48	48. 21. 40	46. 54. 16	45. 26. 51
2 3 4 5 6	Regulus.	73. 14. 51 60. 48. 45 48. 3. 23 34. 57. 55 21. 35. 32	71. 42. 33 59. 14. 11 46. 26. 17 33. 18. 23 19. 54. 38	70. 9. 59 57. 39. 19 44. 48. 52 31. 38. 36 18. 13. 49	68. 37. 8 56. 4. 8 43. 11. 9 29. 58. 33 16. 33. 13
7 8 9 10	Spica ☿	61. 1. 51 46. 54. 45 32. 37. 12 18. 17. 25	59. 16. 43 45. 7. 58 30. 49. 38 16. 30. 31	57. 31. 22 43. 21. 3 29. 2. 3 14. 44. 2	55. 45. 47 41. 34. 0 27. 14. 26 12. 58. 5
11 12 13	Antares.	49. 59. 35 35. 59. 46 22. 30. 13	48. 13. 42 34. 16. 18	46. 28. 2 32. 33. 20	44. 42. 37 30. 50. 53
13 14	♌ Aquila.	73. 59. 56 61. 24. 10	72. 24. 6	70. 48. 36	69. 13. 27
12 13 14 15 16 17	The Sun.	113. 3. 11 99. 51. 7 86. 48. 17 73. 55. 50 61. 14. 29 48. 44. 35	111. 23. 44 98. 12. 43 85. 11. 9 72. 20. 3 59. 40. 7 47. 11. 41	109. 44. 25 96. 34. 28 83. 34. 11 70. 44. 27 58. 5. 56 45. 39. 0	108. 5. 12 94. 56. 22 81. 57. 23 69. 9. 2 56. 31. 56 44. 6. 29
23 24 25 26 27	Aldeba- ran.	69. 5. 24 56. 57. 52 44. 59. 43 33. 8. 7 21. 19. 39	67. 33. 53 55. 27. 38 43. 30. 30 31. 39. 28 19. 51. 8	66. 2. 32 53. 57. 33 42. 1. 21 30. 10. 51 18. 22. 35	64. 31. 21 52. 27. 36 40. 32. 18 28. 42. 16 16. 54. 1
28 M.I	Pollux.	53. 48. 20 42. 19. 7	52. 22. 6	50. 55. 53	49. 29. 41

F E B R U A R Y 1772. [21]

Distances of γ 's Center from Stars, and from \odot east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Pollux.	43. 59. 25	42. 31. 59	41. 4. 34	39. 37. 10
2	Regulus.	67. 4. 2	65. 30. 39	63. 56. 58	62. 23. 0
3		54. 28. 38	52. 52. 48	51. 16. 38	49. 40. 10
4		41. 33. 7	39. 54. 45	38. 16. 6	36. 37. 9
5		28. 18. 17	26. 37. 48	24. 57. 10	23. 16. 23
6		14. 52. 55			
6	Spica 腹	67. 59. 43	66. 15. 40	64. 31. 20	62. 46. 44
7		53. 59. 58	52. 13. 57	50. 27. 44	48. 41. 20
8		39. 46. 48	37. 59. 31	36. 12. 9	34. 24. 43
9		25. 26. 51	23. 39. 18	21. 51. 51	20. 4. 32
10		11. 12. 49			
10	Antares.	57. 4. 35	55. 18. 10	53. 31. 50	51. 45. 38
11		42. 57. 25	41. 12. 31	39. 27. 55	37. 43. 39
12		29. 9. 4	27. 27. 56	25. 47. 40	24. 8. 23
13	α Aquila.	67. 38. 42	66. 4. 23	64. 30. 30	62. 57. 5
11	The Sun.	119. 41. 57	118. 2. 7	116. 22. 22	114. 42. 44
12		106. 26. 7	104. 47. 9	103. 8. 20	101. 29. 39
13		93. 18. 26	91. 40. 39	90. 3. 2	88. 25. 35
14		80. 20. 44	78. 44. 15	77. 7. 56	75. 31. 48
15		67. 33. 47	65. 58. 42	64. 23. 47	62. 49. 3
16		54. 58. 6	53. 24. 26	51. 50. 58	50. 17. 41
17		42. 34. 11	41. 2. 5	39. 30. 10	
22	Aldeba- ran.	75. 13. 16	73. 41. 1	72. 8. 58	70. 37. 5
23		63. 0. 21	61. 29. 30	59. 58. 48	58. 28. 15
24		50. 57. 47	49. 28. 5	47. 58. 31	46. 29. 3
25		39. 3. 20	37. 34. 26	36. 5. 36	34. 36. 50
26		27. 13. 43	25. 45. 11	24. 16. 40	22. 48. 9
27		15. 25. 26			
27	Pollux.	59. 33. 20	58. 7. 5	56. 40. 50	55. 14. 35
28		48. 3. 31	46. 37. 20	45. 11. 13	43. 45. 8

[22] FEBRUARY 1773.

Distances of γ 's Center from \odot , and from Stars west of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1 2	The Sun.	108. 12. 42 119. 21. 20	109. 35. 31 120. 45. 58	110. 58. 32	112. 21. 46
1 2 3	α Arietis.	30. 4. 11 41. 28. 20 53. 26. 44	31. 27. 21 42. 56. 29	32. 51. 15 44. 25. 7	34. 15. 51 45. 54. 15
3 4 5 6	Aldebaran.	19. 20. 26 32. 7. 36 45. 17. 11 58. 48. 56	20. 55. 4 33. 45. 4 46. 57. 28 60. 31. 53	22. 30. 4 35. 22. 53 48. 38. 6 62. 15. 9	24. 5. 27 37. 1. 3 50. 19. 4 63. 58. 43
7 8	Pollux.	31. 19. 33 44. 39. 10	32. 56. 51 46. 21. 46	34. 35. 5 48. 4. 47	36. 14. 8 49. 48. 9
9 10 11 12	Regulus.	21. 29. 57 35. 45. 47 50. 7. 10 64. 26. 6	23. 16. 4 37. 33. 23 51. 54. 47 66. 13. 3	25. 2. 33 39. 21. 2 53. 42. 21 67. 59. 53	26. 49. 19 41. 8. 43 55. 29. 52 69. 46. 36
13 14 15 16	Spica μ	25. 7. 24 39. 8. 36 53. 1. 7 66. 43. 14	26. 52. 54 40. 53. 12 54. 44. 27	28. 38. 21 42. 37. 38 56. 27. 38	30. 23. 42 44. 21. 57 58. 10. 28
16 17 18 19	Antares.	22. 35. 16 35. 24. 14 48. 23. 25 61. 18. 25	24. 9. 35 37. 1. 33 50. 0. 39 62. 54. 44	25. 44. 40 38. 38. 56 51. 37. 48 64. 30. 54	27. 20. 22 40. 16. 22 53. 14. 51 66. 6. 54
25 26 27 28 M.1	The Sun.	44. 29. 51 55. 20. 9 66. 8. 8 76. 58. 5 87. 54. 45	45. 51. 22 56. 41. 11 67. 29. 11 78. 19. 41	47. 12. 49 58. 2. 12 68. 50. 16 79. 41. 25	48. 34. 12 59. 23. 12 70. 11. 24 81. 3. 16

F E B R U A R Y 1773.

[23]

Distances of γ 's Center from \odot , and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	113. 45. 12	115. 8. 52	116. 32. 47	117. 56. 56
1	2 Arietis.	35. 41. 7	37. 7. 3	38. 33. 36	40. 0. 42
2		47. 23. 51	48. 53. 56	50. 24. 26	51. 55. 22
3	Aldeba- ran.	25. 41. 11	27. 17. 15	28. 53. 41	30. 30. 28
4		38. 39. 34	40. 18. 26	41. 57. 40	43. 37. 15
5		52. 0. 23	53. 42. 2	55. 24. 0	57. 6. 18
6		65. 42. 36			
6	Pollux.	25. 2. 22	26. 34. 32	28. 8. 14	29. 43. 17
7		37. 53. 56	39. 34. 23	41. 15. 27	42. 57. 3
8		51. 31. 49			
8	Regulus.	14. 30. 49	16. 14. 31	17. 59. 2	19. 44. 13
9		28. 36. 19	30. 23. 30	32. 10. 49	33. 58. 15
10		42. 56. 26	44. 44. 8	46. 31. 50	48. 19. 31
11		57. 17. 18	59. 4. 38	60. 51. 53	62. 39. 3
12		71. 33. 12			
12	Spica μ	18. 5. 12	19. 50. 44	21. 36. 17	23. 21. 51
13		32. 8. 56	33. 54. 3	35. 39. 1	37. 23. 52
14		46. 6. 6	47. 50. 6	49. 33. 56	51. 17. 36
15		59. 53. 29	61. 36. 10	63. 18. 41	65. 1. 2
16	Antares.	28. 56. 34	30. 33. 7	32. 9. 58	33. 47. 1
17		41. 53. 49	43. 31. 16	45. 8. 41	46. 46. 4
18		54. 51. 49	56. 28. 39	58. 5. 22	59. 41. 57
19		67. 42. 45			
24	The Sun.	39. 2. 49	40. 24. 43	41. 46. 32	43. 8. 14
25		49. 55. 30	51. 16. 44	52. 37. 55	53. 59. 4
26		60. 44. 11	62. 5. 9	63. 26. 8	64. 47. 8
27		71. 32. 35	72. 53. 50	74. 15. 10	75. 36. 35
28		82. 25. 15	83. 47. 23	85. 9. 40	86. 32. 7

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F E B R U A R Y 1773.

JUPITER's Satellites will not be visible this Month,
JUPITER being too near the SUN.

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.
			D. H. M.
			First Quarter — 1. 4. 31
			Full Moon — 8. 10. 55
			Last Quarter — 15. 2. 29
			New Moon — 22. 17. 22
			First Quarter — 30. 21. 59
			Other Phenomena.
			D.
1	M.	David.	5. ☾ 1 ad α 17 ^h . 39'.
2	Tu.	Chad.	☾ 2 ad α 18 ^h . 34'.
3	W.		☾ 3 23 ^h . 0'.
4	Th.		6. ☾ 4 8 ^h . 26'.
5	F.	Princess of Hesse born.	☾ 5 12 ^h . 53'.
6	Sa.		☾ 6 21 ^h . 28'.
7	Su.	2d Sunday in Lent. Perp.	11. ☾ 7 7 ^h . 59'.
8	M.		12. ☾ 4 ad γ 17 ^h . 41'.
9	Tu.		☾ 5 17 ^h . 51'.
10	W.		☾ 6 21 ^h . 34'.
11	Th.	Gregory M.	13. ☾ 7 1 ^h . 44'.
12	F.		☾ 8 Serpent. 16 ^h . 31'.
13	Sa.		17. ☾ 9 18 ^h . 6'.
14	Su.	3d Sunday in Lent.	18. ☾ 10 diff. Lat. 54'.
15	M.		19. ☾ enters γ at 18 ^h . 52'.
16	Tu.		20. ☾ 11 1 ^h . 4'.
17	W.		22. ☾ eclipsed invisible.
18	Th.	Edw. K. of W. Saxons.	☾ 12 diff. Lat. 20'.
19	F.		27. ☾ 1 ad δ 20 ^h . 21'.
20	Sa.		☾ 2 ad δ 20 ^h . 53'.
21	Su.	4th Sunday in Lent, Mid-	
22	M.	[lent Sund. Benedict.	
23	Tu.		
24	W.		
25	Th.	Annunciation of V. Mary.	
26	F.		
27	Sa.		
28	Su.	5th Sunday in Lent.	
29	M.		
30	Tu.		
31	W.		

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MARCH 1773.

Days of the Month.	Days of the Week.	Sun's Longitude.	Sun's Right Asc. in Time.	Sun's Declin. South.	Equat. of Time Add.	Diff.
		S. D. M. S.	H. M. S.	D. M. S.	M. S.	S.
1	M.	11. 11. 17. 9	22. 50. 57, 1	7. 20. 25	12. 35, 8	12, 6
2	Tu.	11. 12. 17. 13	22. 54. 40, 9	6. 57. 32	12. 23, 2	13, 2
3	W.	11. 13. 17. 15	22. 58. 24, 3	6. 34. 32	12. 10, 0	13, 6
4	Th.	11. 14. 17. 14	23. 2. 7, 2	6. 11. 27	11. 56, 4	14, 1
5	F.	11. 15. 17. 12	23. 5. 49, 6	5. 48. 17	11. 42, 3	14, 6
6	Sa.	11. 16. 17. 7	23. 9. 31, 6	5. 25. 3	11. 27, 7	15, 0
7	Su.	11. 17. 17. 0	23. 13. 13, 2	5. 1. 44	11. 12, 7	15, 3
8	M.	11. 18. 16. 51	23. 16. 54, 4	4. 38. 21	10. 57, 4	15, 7
9	Tu.	11. 19. 16. 40	23. 20. 35, 1	4. 14. 55	10. 41, 7	16, 0
10	W.	11. 20. 16. 27	23. 24. 15, 6	3. 51. 26	10. 25, 7	16, 4
11	Th.	11. 21. 16. 13	23. 27. 55, 8	3. 27. 54	10. 9, 3	16, 6
12	F.	11. 22. 15. 56	23. 31. 35, 6	3. 4. 19	9. 52, 7	16, 8
13	Sa.	11. 23. 15. 38	23. 35. 15, 3	2. 40. 43	9. 35, 9	17, 3
14	Su.	11. 24. 15. 18	23. 38. 54, 6	2. 17. 4	9. 18, 6	17, 4
15	M.	11. 25. 14. 5	23. 42. 33, 7	1. 53. 24	9. 1, 2	17, 6
16	Tu.	11. 26. 14. 33	23. 46. 12, 6	1. 29. 43	8. 43, 6	17, 8
17	W.	11. 27. 14. 8	23. 49. 51, 3	1. 6. 2	8. 25, 8	17, 9
18	Th.	11. 28. 13. 42	23. 53. 29, 9	0. 42. 19	8. 7, 9	18, 1
19	F.	11. 29. 13. 13	23. 57. 8, 4	0. 18. 38	7. 49, 8	18, 2
20	Sa.	0. 0. 12. 43	0. 0. 46, 7	0. 5. 4 NORTH.	7. 31, 6	18, 2
21	Su.	0. 1. 12. 11	0. 4. 24, 9	0. 28. 45	7. 13, 4	18, 4
22	M.	0. 2. 11. 37	0. 8. 3, 0	0. 52. 24	6. 55, 0	18, 5
23	Tu.	0. 3. 11. 1	0. 11. 41, 0	1. 16. 2	6. 36, 5	18, 5
24	W.	0. 4. 10. 24	0. 15. 19, 0	1. 39. 38	6. 18, 0	18, 6
25	Th.	0. 5. 9. 44	0. 18. 56, 9	2. 3. 11	5. 59, 4	18, 6
26	F.	0. 6. 9. 1	0. 22. 34, 8	2. 26. 42	5. 40, 8	18, 6
27	Sa.	0. 7. 8. 16	0. 26. 12, 7	2. 50. 10	5. 22, 2	18, 6
28	Su.	0. 8. 7. 30	0. 29. 50, 6	3. 13. 35	5. 3, 5	18, 6
29	M.	0. 9. 6. 40	0. 33. 28, 5	3. 36. 55	4. 45, 0	18, 5
30	Tu.	0. 10. 5. 48	0. 37. 6, 4	4. 0. 11	4. 26, 5	18, 5
31	W.	0. 11. 4. 55	0. 40. 44, 5	4. 23. 23	4. 8, 0	18, 4

MARCH 1773.

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Days of the Month.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	16. 10, 6	1. 5, 2	2. 30, 1	9. 996493	6. 12. 16
7	16. 9, 1	1. 4, 9	2. 29, 7	9. 997169	6. 11. 57
13	16. 7, 4	1. 4, 6	2. 29, 2	9. 997893	6. 11. 38
19	16. 5, 8	1. 4, 4	2. 28, 8	9. 998653	6. 11. 19
25	16. 4, 1	1. 4, 3	2. 28, 3	9. 999405	6. 11. 0

The Eclipses of JUPITER's Satellites will not be visible
this Month; JUPITER being too near the SUN.

[28] M A R C H 1773.						
Days.	Heliocen- tric Lon- gitude.	Heliocen- tric Lati- tude.	Geocen- tric Lon- gitude.	Geocen- tric La- titude.	Declina- tion.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.
M E R C U R Y. Sup. δ 15 ^d . 7 ^h .						
1	9. 29. 45	6. 43 S	10. 29. 31	2. 9 S	13. 50 S	23. 20
7	10. 20. 27	6. 58	11. 9. 40	2. 3	9. 51	23. 38
13	11. 14. 42	6. 8	11. 20. 57	1. 40	5. 7 S	23. 57
19	0. 13. 43	3. 44 S	0. 2. 51	0. 57 S	0. 16 N	0. 15
25	1. 18. 0	0. 16 N	0. 14. 59	0. 4 N	5. 58	0. 36
V E N U S.						
1	9. 12. 35	1. 36 S	10. 16. 53	0. 46 S	16. 32 S	22. 28
7	9. 22. 4	2. 4	10. 24. 18	0. 59	14. 22	22. 36
13	10. 1. 33	2. 29	11. 1. 43	1. 10	11. 58	22. 42
19	10. 11. 2	2. 49	11. 9. 7	1. 18	9. 22	22. 49
25	10. 20. 31	3. 6	11. 16. 32	1. 24	6. 37	22. 55
M A R S.						
1	4. 18. 46	1. 51 N	3. 21. 42	3. 40 N	25. 20 N	8. 44
7	4. 21. 24	1. 51	3. 21. 56	3. 29	25. 7	8. 23
13	4. 24. 2	1. 50	3. 22. 34	3. 17	24. 49	8. 4
19	4. 26. 39	1. 50	3. 23. 34	3. 6	24. 28	7. 46
25	4. 29. 16	1. 49	3. 24. 53	2. 55	24. 3	7. 31
J U P I T E R. δ 5 ^d . 6 ^h .						
1	11. 15. 9	1. 13 S	11. 14. 30	1. 0 S	7. 2 S	0. 14
7	11. 15. 41	1. 13	11. 15. 57	1. 1	6. 29	23. 54
13	11. 16. 14	1. 13	11. 17. 24	1. 1	5. 55	23. 37
19	11. 16. 47	1. 14	11. 18. 51	1. 1	5. 21	23. 21
25	11. 17. 20	1. 14	11. 20. 17	1. 2	4. 48	23. 4
S A T U R N.						
1	5. 9. 46	1. 52 N	5. 9. 36	2. 6 N	9. 55 N	11. 55
7	5. 9. 59	1. 53	5. 9. 7	2. 6	10. 6	11. 31
13	5. 10. 12	1. 53	5. 8. 39	2. 6	10. 17	11. 7
19	5. 10. 24	1. 53	5. 8. 12	2. 6	10. 26	10. 44
25	5. 10. 37	1. 54	5. 7. 47	2. 6	10. 36	10. 20

MARCH 1773.

[29]

Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midn.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	M.	2. 9. 11. 32	2. 15. 15. 1	4. 27. 23 S	4. 43. 18 S
2	Tu.	2. 21. 22. 23	2. 27. 34. 10	4. 56. 12	5. 5. 49
3	W.	3. 3. 56. 48	3. 10. 12. 56	5. 11. 53	5. 14. 15
4	Th.	3. 16. 40. 46	3. 23. 14. 48	5. 12. 41	5. 7. 2
5	F.	3. 29. 55. 9	4. 6. 41. 55	4. 57. 9	4. 42. 59
6	Sa.	4. 13. 35. 5	4. 20. 34. 21	4. 24. 32	4. 1. 51
7	Su.	4. 27. 39. 24	5. 4. 49. 52	3. 35. 11	3. 4. 47
8	M.	5. 12. 4. 55	5. 19. 23. 51	2. 31. 4	1. 54. 35
9	Tu.	5. 26. 45. 48	6. 4. 9. 48	1. 15. 51 S	0. 35. 41 S
10	W.	6. 11. 34. 58	6. 19. 0. 22	0. 5. 14 N	0. 46. 5 N
11	Th.	6. 26. 24. 55	7. 3. 47. 55	1. 26. 8	2. 4. 37
12	F.	7. 11. 8. 35	7. 18. 26. 16	2. 40. 48	3. 14. 11
13	Sa.	7. 25. 40. 27	8. 2. 50. 42	3. 44. 5	4. 10. 17
14	Su.	8. 9. 56. 41	8. 16. 58. 22	4. 32. 17	4. 49. 59
15	M.	8. 23. 55. 30	9. 0. 48. 7	5. 3. 12	5. 11. 57
16	Tu.	9. 7. 36. 6	9. 14. 19. 43	5. 16. 10	5. 16. 1
17	W.	9. 20. 58. 56	9. 27. 33. 57	5. 11. 35	5. 3. 5
18	Th.	10. 4. 4. 55	10. 10. 32. 44	4. 50. 45	4. 34. 49
19	F.	10. 16. 55. 36	10. 23. 15. 35	4. 15. 36	3. 53. 26
20	Sa.	10. 29. 32. 18	11. 5. 45. 55	3. 28. 34	3. 1. 25
21	Su.	11. 11. 56. 37	11. 18. 4. 39	2. 32. 22	2. 1. 44
22	M.	11. 24. 10. 9	0. 0. 13. 22	1. 29. 52	0. 57. 13 N
23	Tu.	0. 6. 14. 24	0. 12. 13. 39	0. 24. 4 N	0. 9. 11 S
24	W.	0. 18. 11. 14	0. 24. 7. 27	0. 42. 11 S	1. 14. 37
25	Th.	1. 0. 2. 33	1. 5. 56. 56	1. 46. 9	2. 16. 28
26	F.	1. 11. 50. 48	1. 17. 44. 39	2. 45. 19	3. 12. 22
27	Sa.	1. 23. 38. 52	1. 29. 33. 51	3. 37. 23	4. 0. 11
28	Su.	2. 5. 30. 4	2. 11. 28. 5	4. 20. 27	4. 38. 0
29	M.	2. 17. 28. 22	2. 23. 31. 32	4. 52. 38	5. 4. 6
30	Tu.	2. 29. 37. 55	3. 5. 48. 15	5. 12. 17	5. 16. 56
31	W.	3. 12. 3. 2	3. 18. 22. 48	5. 17. 56	5. 15. 8

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M A R C H 1773.

Days.	Heliocen- tric Lon- gitude.	Heliocen- tric Lat- itude.	Geocen- tric Lon- gitude.	Geocen- tric La- titude.	Declina- tion.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

M E R C U R Y. Sup. δ 15^d. 7^h.

1	9. 29. 45	6. 43 S	10. 29. 3	2. 9 S	13. 50 S	23. 20
7	10. 20. 27	6. 58	11. 9. 40	2. 3	9. 51	23. 38
13	11. 14. 42	6. 8	11. 20. 57	1. 40	5. 7 S	23. 57
19	0. 13. 43	3. 44 S	0. 2. 51	0. 57 S	0. 16 N	0. 15
25	1. 18. 0	0. 16 N	0. 14. 59	0. 4 N	5. 58	0. 36

V E N U S.

1	9. 12. 35	1. 36 S	10. 16. 53	0. 46 S	16. 32 S	22. 28
7	9. 22. 4	2. 4	10. 24. 18	0. 59	14. 22	22. 36
13	10. 1. 33	2. 29	11. 1. 43	1. 10	11. 58	22. 42
19	10. 11. 2	2. 49	11. 9. 7	1. 18	9. 22	22. 49
25	10. 20. 31	3. 6	11. 16. 32	1. 24	6. 37	22. 55

M A R S.

1	4. 18. 46	1. 51 N	3. 21. 42	3. 40 N	25. 20 N	8. 44
7	4. 21. 24	1. 51	3. 21. 56	3. 29	25. 7	8. 23
13	4. 24. 2	1. 50	3. 22. 34	3. 17	24. 49	8. 4
19	4. 26. 39	1. 50	3. 23. 34	3. 6	24. 28	7. 46
25	4. 29. 16	1. 49	3. 24. 53	2. 55	24. 3	7. 31

J U P I T E R. δ 5^d. 6^h.

1	11. 15. 9	1. 13 S	11. 14. 30	1. 0 S	7. 2 S	0. 14
7	11. 15. 41	1. 13	11. 15. 57	1. 1	6. 29	23. 54
13	11. 16. 14	1. 13	11. 17. 24	1. 1	5. 55	23. 37
19	11. 16. 47	1. 14	11. 18. 51	1. 1	5. 21	23. 21
25	11. 17. 20	1. 14	11. 20. 17	1. 2	4. 48	23. 4

S A T U R N.

1	5. 9. 46	1. 52 N	5. 9. 36	2. 6 N	9. 55 N	11. 55
7	5. 9. 59	1. 53	5. 9. 7	2. 6	10. 6	11. 31
13	5. 10. 12	1. 53	5. 8. 39	2. 6	10. 17	11. 7
19	5. 10. 24	1. 53	5. 8. 12	2. 6	10. 26	10. 44
25	5. 10. 37	1. 54	5. 7. 47	2. 6	10. 36	10. 20

MARCH 1773.

[29]

Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midnight.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	M.	2. 9. 11. 32	2. 15. 45. 1	4 27. 23 S	4 43. 18 S
2	Tu.	2. 21. 22. 23	2. 27. 34. 10	4 56. 12	5. 5. 49
3	W.	3. 3. 50. 48	3. 10. 12. 56	5. 11. 53	5. 14. 15
4	Th.	3. 16. 40. 46	3. 23. 14. 48	5. 12. 41	5. 7. 2
5	F.	3. 29. 55. 9	4. 6. 41. 55	4 57. 9	4 42. 59
6	Sa.	4. 13. 35. 5	4. 20. 34. 21	4 24. 32	4. 1. 51
7	Su.	4. 27. 39. 24	5. 4. 49. 52	3. 35. 11	3. 4. 47
8	M.	5. 12. 4. 55	5. 19. 23. 51	2. 31. 4	1. 54. 35
9	Tu.	5. 26. 45. 48	6. 4. 9. 48	1. 15. 51 S	0. 35. 41 S
10	W.	6. 11. 34. 58	6. 19. 0. 22	0. 5. 14 N	0. 46. 5 N
11	Th.	6. 26. 24. 55	7. 3. 47. 55	1. 26. 8	2. 4. 37
12	F.	7. 11. 8. 35	7. 18. 26. 16	2. 40. 48	3. 14. 11
13	Sa.	7. 25. 40. 27	8. 2. 50. 42	3. 44. 5	4. 10. 17
14	Su.	8. 9. 56. 41	8. 16. 58. 22	4 32. 17	4 49. 59
15	M.	8. 23. 55. 39	9. 0. 48. 7	5. 3. 12	5. 11. 57
16	Tu.	9. 7. 36. 6	9. 14. 19. 43	5. 16. 10	5. 16. 1
17	W.	9. 20. 58. 56	9. 27. 33. 57	5. 11. 35	5. 3. 5
18	Th.	10. 4. 4. 55	10. 10. 32. 44	5 50. 45	4 34. 49
19	F.	10. 16. 55. 36	10. 23. 15. 35	4 15. 36	3. 53. 26
20	Sa.	10. 29. 32. 18	11. 5. 45. 55	3. 28. 34	3. 1. 25
21	Su.	11. 11. 56. 37	11. 18. 4. 39	2. 32. 22	2. 1. 44
22	M.	11. 24. 10. 9	0. 0. 13. 22	1. 29. 52	0. 57. 13 N
23	Tu.	0. 6. 14. 24	0. 12. 13. 39	0. 24. 4 N	0. 9. 11 S
24	W.	0. 18. 11. 14	0. 24. 7. 27	0. 42. 11 S	1. 14. 37
25	Th.	1. 0. 2. 33	1. 5. 56. 56	1. 46. 9	2. 16. 28
26	F.	1. 11. 50. 48	1. 17. 44. 39	2. 45. 19	3. 12. 22
27	Sa.	1. 23. 38. 52	1. 29. 33. 51	3. 37. 23	4. 0. 11
28	Su.	2. 5. 30. 4	2. 11. 28. 5	4 20. 27	4 38. 0
29	M.	2. 17. 28. 22	2. 23. 31. 32	4 52. 38	5. 4. 6
30	Tu.	2. 29. 37. 55	3. 5. 48. 15	5. 12. 17	5. 16. 56
31	W.	3. 12. 3. 2	3. 18. 22. 48	5. 17. 56	5. 15. 8

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M A R C H 1773.

Days of the Month.	Days of the Week.	D's Age.	D's Passage over Merid.	D's Right Ascen. at Noon.	D's Right Ascen. at Midn.	D's Declinat. at Noon.	D's Declinat. at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	M.	10	5. 54	68. 13	74. 32	17. 27 N	17. 58 N
2	Tu.	11	6. 43	80. 57	87. 27	18. 16	18. 21
3	W.	12	7. 33	94. 2	100. 42	18. 13	17. 51
4	Th.	13	8. 25	107. 25	114. 12	17. 15	16. 25
5	F.	14	9. 18	121. 1	127. 53	15. 21	14. 3
6	Sa.	15	10. 11	134. 46	141. 40	12. 32	10. 49
7	Su.	16	11. 5	148. 36	155. 33	8. 56	6. 53
8	M.	17	11. 59	162. 31	169. 30	4. 42	2. 27 N
9	Tu.	18	12. 54	176. 32	183. 35	0. 8 N	2. 12 S
10	W.	19	13. 49	190. 41	197. 50	4. 30 S	6. 44
11	Th.	20	14. 46	205. 1	212. 16	8. 52	10. 51
12	F.	21	15. 43	219. 34	226. 54	12. 38	14. 13
13	Sa.	22	16. 40	234. 15	241. 38	15. 34	16. 39
14	Su.	23	17. 37	249. 0	256. 20	17. 28	18. 1
15	M.	24	18. 33	263. 38	270. 51	18. 17	18. 16
16	Tu.	25	19. 28	277. 58	284. 58	17. 59	17. 28
17	W.	26	20. 20	291. 51	298. 37	16. 42	15. 43
18	Th.	27	21. 9	305. 14	311. 43	14. 33	13. 12
19	F.	28	21. 57	318. 4	324. 18	11. 43	10. 6
20	Sa.	29	22. 43	330. 25	336. 27	8. 23	6. 36
21	Su.	30	23. 27	342. 23	348. 15	4. 45	2. 51 S
22	M.	1	0	354. 3	359. 49	0. 57 S	0. 58 N
23	Tu.	2	0. 11	5. 34	11. 18	2. 51 N	4. 42
24	W.	3	0. 54	17. 2	22. 48	6. 29	8. 13
25	Th.	4	1. 38	28. 35	34. 24	9. 51	11. 22
26	F.	5	2. 23	40. 16	46. 12	12. 47	14. 4
27	Sa.	6	3. 8	52. 12	58. 15	15. 12	16. 10
28	Su.	7	3. 55	64. 23	70. 35	16. 58	17. 35
29	M.	8	4. 43	76. 51	83. 12	18. 1	18. 15
30	Tu.	9	5. 32	89. 37	96. 5	18. 16	18. 4
31	W.	10	6. 23	102. 36	109. 10	17. 38	17. 0

MARCH 1773.

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Days of the Month.	Days of the Week.	Semid ^r . D at Noon.	Semid ^r . D at Midnight.	Hor.Par. D at Noon.	Hor. Par. D at Midnight.	Propor. Lo- gar. at Noon.	Propor. Lo- gar. at Mid.
		M. S.	M. S.	M. S.	M. S.		
1	M.	14. 57	15. 1	54. 52	55. 7	5159	5140
2	Tu.	15. 6	15. 11	55. 24	55. 44	5117	5091
3	W.	15. 17	15. 23	56. 5	56. 29	5064	5033
4	Th.	15. 30	15. 37	56. 54	57. 20	5002	4968
5	F.	15. 45	15. 52	57. 46	58. 13	4935	4902
6	Sa.	15. 59	16. 6	58. 40	59. 5	4869	4838
7	Su.	15. 13	16. 18	59. 29	59. 51	4809	4782
8	M.	16. 24	16. 28	60. 10	60. 25	4759	4741
9	Tu.	16. 31	16. 33	60. 36	60. 44	4728	4718
10	W.	16. 34	16. 34	60. 48	60. 48	4714	4714
11	Th.	16. 33	16. 31	60. 44	60. 37	4718	4727
12	F.	16. 28	16. 24	60. 26	60. 12	4740	4757
13	Sa.	16. 20	16. 15	59. 57	59. 39	4775	4797
14	Su.	16. 10	16. 5	59. 21	59. 1	4819	4843
15	M.	15. 59	15. 54	58. 41	58. 20	4867	4893
16	Tu.	15. 48	15. 43	58. 0	57. 40	4918	4943
17	W.	15. 38	15. 32	57. 21	57. 2	4967	4991
18	Th.	15. 28	15. 23	56. 44	56. 26	5014	5037
19	F.	15. 18	15. 14	56. 10	55. 54	5058	5079
20	Sa.	15. 10	15. 6	55. 41	55. 26	5095	5115
21	Su.	15. 3	15. 0	55. 14	55. 2	5130	5146
22	M.	14. 57	14. 54	54. 51	54. 41	5161	5174
23	Tu.	14. 52	14. 49	54. 33	54. 25	5185	5195
24	W.	14. 48	14. 46	54. 18	54. 13	5205	5211
25	Th.	14. 46	14. 45	54. 10	54. 7	5215	5219
26	F.	14. 44	14. 45	54. 6	54. 8	5221	5218
27	Sa.	14. 47	14. 47	54. 11	54. 16	5214	5207
28	Su.	14. 49	14. 52	54. 24	54. 33	5197	5185
29	M.	14. 55	14. 59	54. 45	54. 59	5169	5150
30	Tu.	15. 4	15. 8	55. 17	55. 35	5127	5103
31	W.	15. 14	15. 21	55. 55	56. 19	5077	5046

Distances of β 's Center from Stars, and from \odot east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Pollux.	42. 19. 7	40. 53. 10	39. 27. 19	38. 1. 34
2		30. 55. 45			
2	Regulus.	65. 27. 11	63. 55. 16	62. 23. 5	60. 50. 38
3		53. 4. 10	51. 29. 56	49. 55. 22	48. 20. 29
4		40. 21. 10	38. 44. 15	37. 7. 0	35. 29. 25
5		27. 16. 33	25. 37. 5	23. 57. 23	22. 17. 30
6		13. 57. 48			
6	Spica μ	67. 0. 58	65. 17. 3	63. 32. 44	61. 48. 1
7		52. 58. 46	51. 11. 48	49. 24. 30	47. 36. 53
8		38. 34. 25	36. 45. 7	34. 55. 39	33. 5. 57
9		23. 55. 23	22. 5. 7	20. 14. 53	18. 24. 45
10	Antares.	55. 9. 4	53. 19. 15	51. 29. 34	49. 40. 2
11		40. 35. 34	38. 47. 34	36. 59. 58	35. 12. 48
12		26. 26. 28			
12	Aquilæ.	77. 43. 56	76. 4. 17	74. 24. 59	72. 46. 3
13		64. 38. 21	63. 2. 23	61. 27. 6	59. 52. 27
14		52. 10. 28	50. 40. 41	49. 11. 53	47. 44. 7
15	Capric.	36. 49. 11	35. 5. 58	33. 23. 31	31. 40. 27
13	The Sun.	117. 31. 23	115. 50. 56	114. 10. 46	112. 30. 53
14		104. 15. 52	102. 37. 44	100. 59. 53	99. 22. 20
15		91. 19. 7	89. 43. 22	88. 7. 55	86. 32. 45
16		78. 41. 22	77. 7. 56	75. 34. 46	74. 1. 52
17		66. 21. 24	64. 50. 5	63. 19. 1	61. 48. 12
18		54. 17. 40	52. 48. 14	51. 19. 1	49. 50. 0
19		42. 28. 4	41. 0. 17	39. 32. 41	
25	Aldebaran.	36. 41. 0	35. 12. 6	33. 43. 16	32. 14. 29
26		24. 51. 20	23. 22. 49	21. 54. 19	20. 25. 51
27		13. 3. 47			
27	Pollux.	57. 16. 44	55. 50. 49	54. 24. 58	52. 59. 9
28		45. 51. 16	44. 25. 56	43. 0. 44	41. 35. 40
29		34. 32. 51			
29	Regulus.	69. 19. 57	67. 49. 58	66. 19. 50	64. 49. 32
30		57. 15. 21	55. 43. 52	54. 12. 9	52. 40. 12
31		44. 56. 34	43. 23. 2	41. 49. 12	40. 15. 4
A. I.		32. 19. 41			

M A R C H 1778.

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Distances of J's Center from Stars, and from ☉ east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Pollux.	36. 35. 58	35. 10. 31	33. 45. 18	32. 20. 22
2		59. 17. 56	57. 44. 57	56. 11. 39	54. 38. 4
3	Regulus.	46. 45. 17	45. 9. 46	43. 33. 54	41. 57. 42
4		33. 51. 29	32. 13. 13	30. 34. 38	28. 55. 44
5		20. 37. 28	18. 57. 19	17. 17. 13	15. 37. 20
6		60. 2. 55	58. 17. 26	56. 31. 35	54. 45. 21
7	Spica ♄	45. 48. 57	44. 0. 43	42. 12. 13	40. 23. 27
8		31. 16. 4	29. 26. 2	27. 35. 54	25. 45. 40
9		16. 34. 44			
9		62. 28. 43	60. 38. 47	58. 48. 52	56. 58. 58
10	Antares.	47. 50. 39	46. 1. 29	44. 12. 34	42. 25. 55
11		33. 26. 10	31. 40. 7	29. 54. 45	28. 10. 10
12		71. 7. 33	69. 29. 29	67. 51. 55	65. 14. 52
13	♌ Aquilæ.	58. 18. 28	56. 45. 12	55. 12. 47	53. 41. 12
14		46. 17. 26			
14	♏ Capri-	43. 44. 57	42. 0. 33	40. 16. 27	38. 32. 40
15	corni.	29. 58. 9			
12				120. 53. 4	119. 12. 5
13		110. 51. 17	109. 12. 0	107. 33. 0	105. 54. 17
14		97. 45. 5	96. 8. 9	94. 31. 30	92. 55. 10
15	The Sun.	84. 57. 53	83. 23. 19	81. 49. 3	80. 15. 4
16		72. 29. 14	70. 56. 53	69. 24. 48	67. 52. 58
17		60. 17. 37	58. 47. 17	57. 17. 11	55. 47. 19
18		48. 21. 12	46. 52. 37	45. 24. 14	43. 56. 3
24	Aldeba-	42. 37. 12	41. 8. 3	39. 38. 58	38. 9. 57
25	ran.	30. 45. 45	29. 17. 5	27. 48. 27	26. 19. 53
26		18. 57. 24	17. 28. 58	16. 0. 34	14. 32. 10
27		51. 33. 25	50. 7. 45	48. 42. 10	47. 16. 40
28	Pollux.	40. 10. 44	38. 45. 58	37. 21. 24	35. 57. 1
29		63. 19. 5	61. 45. 27	60. 17. 37	58. 46. 35
30	Regulus.	51. 8. 0	49. 35. 33	48. 2. 49	46. 29. 50
31		38. 40. 38	37. 5. 56	35. 30. 52	33. 55. 27

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M A R C H 1773.

Distances of γ 's Center from \odot , and from Stars west of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	87. 54. 46	89. 17. 32	90. 40. 31	92. 3. 42
2		99. 3. 7	100. 27. 45	101. 52. 41	103. 17. 52
3		110. 28. 15	111. 55. 18	113. 22. 43	114. 50. 27
1	α Arietis.	37. 27. 13	38. 52. 19	40. 17. 54	41. 43. 57
2		49. 1. 9	50. 29. 53	51. 59. 1	53. 28. 32
3	Aldeba- ran.	27. 6. 25	28. 40. 57	30. 15. 50	31. 51. 4
4		39. 52. 40	41. 30. 8	43. 8. 1	44. 46. 17
5		53. 3. 45	54. 44. 29	56. 25. 38	58. 7. 13
6		66. 41. 22			
6	Pollux.	25. 56. 1	27. 28. 36	29. 2. 44	30. 38. 16
7		38. 52. 27	40. 33. 57	42. 16. 11	43. 59. 4
8		52. 42. 2			
8	Regulus.	15. 40. 40	17. 26. 44	19. 13. 44	21. 1. 31
9		30. 7. 33	31. 57. 44	33. 48. 10	35. 38. 47
10		44. 53. 56	46. 45. 13	48. 36. 31	50. 27. 49
11		59. 43. 44	61. 34. 38	63. 25. 28	65. 16. 10
12	Spica μ	20. 59. 21	22. 48. 14	24. 37. 3	26. 25. 45
13		35. 26. 38	37. 14. 10	39. 1. 26	40. 48. 27
14		49. 39. 27	51. 24. 50	53. 9. 55	54. 54. 43
15		63. 34. 17	65. 17. 19	67. 0. 4	68. 42. 32
16	Antares.	32. 28. 43	34. 5. 30	35. 42. 22	37. 19. 15
17		45. 22. 57	46. 59. 25	48. 35. 44	50. 11. 55
18		58. 10. 38	59. 45. 54	61. 21. 1	62. 55. 57
19		70. 48. 12			
19	β Capri- corni.	16. 0. 12	17. 35. 22	19. 10. 22	20. 45. 10
20		28. 36. 32	30. 10. 17	31. 43. 51	33. 17. 16
21		41. 1. 53			
26	The Sun.				39. 50. 59
27		46. 37. 6	47. 58. 23	49. 19. 43	50. 41. 6
28		57. 28. 51	58. 50. 40	60. 12. 35	61. 34. 37
29		68. 26. 38	69. 49. 31	71. 12. 34	72. 35. 47
30		79. 34. 44	80. 59. 11	82. 23. 54	83. 48. 52
31		90. 57. 51	92. 24. 33	93. 51. 34	95. 18. 55
A. 1		102. 41. 10			
31 A. 1	Aldeba- ran.	35. 16. 12	36. 50. 11	38. 24. 30	39. 59. 10
		47. 57. 57			

Distances of γ 's Center from \odot , and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	93. 27. 7	94. 50. 45	96. 14. 38	97. 38. 45
2		104. 43. 21	106. 9. 6	107. 35. 11	109. 1. 33
3		116. 18. 33	117. 47. 0	119. 15. 48	120. 44. 58
1	α Arietis.	43. 10. 30	44. 37. 30	46. 4. 57	47. 32. 50
2		54. 58. 26			
2	Aldebaran.	20. 51. 43	22. 24. 53	23. 58. 23	25. 32. 14
3		33. 26. 39	35. 2. 3	36. 38. 55	38. 15. 37
4		46. 24. 58	48. 4. 3	49. 43. 32	51. 23. 26
5		59. 49. 12	61. 31. 3	63. 14. 26	64. 57. 42
6	Pollux.	32. 15. 3	33. 52. 57	35. 31. 53	37. 11. 44
7		45. 42. 35	47. 26. 41	49. 11. 21	50. 56. 29
8	Regulus.	22. 49. 56	24. 38. 46	26. 28. 1	28. 17. 38
9		37. 29. 34	39. 20. 30	41. 11. 33	43. 2. 41
10		52. 19. 8	54. 10. 23	56. 1. 34	57. 52. 41
11		67. 6. 45			
11	Spica γ	13. 44. 29	15. 32. 54	17. 21. 35	19. 10. 26
12		28. 14. 19	30. 2. 42	31. 50. 54	33. 38. 53
13		42. 35. 13	44. 21. 41	46. 7. 53	47. 53. 48
14		56. 39. 14	58. 23. 26	60. 7. 21	61. 50. 58
15		70. 24. 42			
15	Antares.	26. 3. 32	27. 39. 23	29. 15. 35	30. 52. 3
16		38. 56. 7	40. 32. 57	42. 9. 43	43. 46. 23
17		51. 47. 58	53. 23. 52	54. 59. 37	56. 35. 12
18		64. 30. 44	66. 5. 21	67. 39. 48	69. 14. 5
19	β Capricorni.	22. 19. 48	23. 54. 15	25. 28. 31	27. 2. 37
20		34. 50. 30	36. 23. 35	37. 56. 30	39. 29. 16
26	The Sun.	41. 12. 11	42. 33. 23	43. 54. 36	45. 15. 51
27		52. 2. 31	53. 23. 58	54. 45. 31	56. 7. 8
28		62. 56. 45	64. 19. 1	65. 41. 25	67. 3. 57
29		73. 59. 10	75. 22. 44	76. 46. 31	78. 10. 31
30		85. 14. 7	86. 39. 37	88. 5. 24	89. 31. 20
31		96. 46. 37	98. 14. 41	99. 43. 7	101. 11. 57
31	Aldebar.	41. 34. 12	43. 9. 35	44. 45. 20	46. 21. 27

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A P R I L 1773.

Days of the Month.	Days of the Week.	Sun's Longitude.	Sun's Right Asc. in Time.	Sun's Declin. North.	Equat. of Time. Add.	Diff.
		S. D. M. S.	H. M. S.	D. M. S.	M. S.	S.
1	Th.	0. 12. 3. 58	0. 44. 22, 5	4. 46. 29	3. 49, 5	18, 3
2	F.	0. 13. 2. 59	0. 48. 0, 7	5. 9. 32	3. 31, 2	18, 2
3	Sa.	0. 14. 1. 58	0. 51. 39, 0	5. 32. 27	3. 13, 0	18, 1
4	Su.	0. 15. 0. 54	0. 55. 17, 5	5. 55. 17	2. 54, 9	17, 9
5	M.	0. 15. 59, 48	0. 58. 52, 1	6. 18. 1	2. 37, 0	17, 7
6	Tu.	0. 16. 58. 41	1. 2. 34, 9	6. 40. 38	2. 19, 3	17, 5
7	W.	0. 17. 57. 31	1. 6. 13, 9	7. 3. 9	2. 1, 8	17, 3
8	Th.	0. 18. 56. 18	1. 9. 53, 1	7. 25. 32	1. 44, 5	17, 0
9	F.	0. 19. 55. 5	1. 13. 32, 6	7. 47. 48	1. 27, 5	16, 7
10	Sa.	0. 20. 53. 49	1. 17. 12, 4	8. 9. 57	1. 10, 8	16, 5
11	Su.	0. 21. 52. 32	1. 20. 52, 4	8. 31. 56	0. 54, 3	16, 1
12	M.	0. 22. 51. 13	1. 24. 32, 8	8. 53. 48	0. 38, 2	15, 8
13	Tu.	0. 23. 49. 52	1. 28. 13, 5	9. 15. 32	0. 22, 4	15, 4
14	W.	0. 24. 48. 30	1. 31. 54, 6	9. 37. 5	0. 7, 0	15, 1
15	Th.	0. 25. 47. 6	1. 35. 36, 0	9. 58. 30	Sub. 8, 1	14, 7
16	F.	0. 26. 45. 40	1. 39. 17, 8	10. 19. 45	0. 22, 8	14, 3
17	Sa.	0. 27. 44. 13	1. 43. 0, 0	10. 40. 50	0. 37, 1	13, 9
18	Su.	0. 28. 42. 45	1. 46. 42, 7	11. 1. 44	0. 51, 0	13, 5
19	M.	0. 29. 41. 14	1. 50. 25, 7	11. 22. 28	1. 4, 5	13, 0
20	Tu.	1. 0. 39. 43	1. 54. 9, 2	11. 43. 1	1. 17, 5	12, 6
21	W.	1. 1. 38. 9	1. 57. 53, 1	12. 3. 22	1. 30, 1	12, 2
22	Th.	1. 2. 36. 33	2. 1. 37, 5	12. 23. 31	1. 42, 3	11, 7
23	F.	1. 3. 34. 56	2. 5. 22, 3	12. 43. 28	1. 54, 0	11, 2
24	Sa.	1. 4. 33. 16	2. 9. 7, 6	13. 3. 13	2. 5, 2	10, 8
25	Su.	1. 5. 31. 35	2. 12. 53, 4	13. 22. 44	2. 16, 0	10, 3
26	M.	1. 6. 29. 52	2. 16. 39, 6	13. 42. 3	2. 26, 3	9, 8
27	Tu.	1. 7. 28. 6	2. 20. 26, 3	14. 1. 7	2. 36, 1	9, 3
28	W.	1. 8. 26. 18	2. 24. 13, 5	14. 19. 59	2. 45, 4	8, 8
29	Th.	1. 9. 24. 29	2. 28. 1, 2	14. 38. 35	2. 54, 2	8, 3
30	F.	1. 10. 22. 38	2. 31. 49, 4	14. 56. 58	3. 2, 5	7, 9

Days.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	16. 2,2	1. 4,4	2. 27,6	0.000263	6. 10. 37
7	16. 0,5	1. 4,5	2. 27,1	0.000999	6. 10. 18
13	15. 58,9	1. 4,8	2. 26,5	0.001745	6. 9. 59
19	15. 57,4	1. 5,1	2. 26,1	0.002480	6. 9. 40
25	15. 56,0	1. 5,5	2. 25,6	0.003166	6. 9. 21

Eclipses of the SATELLITES of J U P I T E R.

I. Satellite. Immerfions.		II. Satellite. Immerfions.		III. Satellite.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
1	4. 58. 38	4	5. 45. 43	1	11. 11. 33 I
2	23. 27. 45	7	19. 4. 52	1	14. 16. 3 E
4	17. 56. 57	11	8. 24. 0	8	15. 15. 3 I
6	12. 26. 4	14	21. 43. 0	8	18. 18. 29 E
8	6. 55. 15	18	11. 2. 2	15	19. 18. 18 I
10	1. 24. 20	22	0. 20. 57	15	22. 20. 40 E
11	19. 53. 28	25	13. 39. 44	22	23. 21. 7 I
13	14. 22. 30	29	2. 58. 28	23	2. 22. 22 E
15	8. 51. 34			30	3. 23. 29 I
17	3. 20. 33			30	6. 23. 37 E
18	21. 49. 34			IV. Satellite.	
20	16. 18. 29				
22	10. 47. 28				
24	5. 16. 23				
25	23. 45. 14				
27	18. 14. 3			4	23. 11. 26 I
29	12. 42. 52			5	2. 51. 5 E
				21	17. 33. 33 I
				21	21. 6. 37 E

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A P R I L 1773.

Days.	Heliocen- tric Lon- gitude.	Heliocen- tric Lati- tude.	Geocen- tric Lon- gitude.	Geocen- tric Lati- tude.	Declina- tion.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

M E R C U R Y. Gr. Elong. 10^d. Inf. 8 30^d. 9^h.

1	3. 1. 50	5. 3 N	0. 28. 9	1. 25 N	12. 9 N	0. 58
7	4. 7. 26	6. 55	1. 7. 4	2. 25	16. 11	1. 9
13	5. 7. 47	6. 29	1. 12. 49	2. 56	18. 30	1. 8
19	6. 2. 50	4. 47	1. 15. 0	2. 48	19. 2	0. 56
25	6. 23. 56	2. 37	1. 13. 48	1. 52	17. 47	0. 30

V E N U S.

1	11. 1. 36	3. 18 S	11. 25. 11	1. 29 S	3. 17 S	23. 1
7	11. 11. 7	3. 23	0. 2. 35	1. 30	0. 21 S	23. 6
13	11. 20. 38	3. 22	0. 9. 59	1. 29	2. 36 N	23. 12
19	0. 0. 10	3. 16	0. 17. 22	1. 25	5. 31	23. 17
25	0. 9. 44	3. 4	0. 24. 46	1. 19	8. 23	23. 22

M A R S. □ 25^d. 0^h.

1	5. 2. 20	1. 48 N	3. 26. 47	2. 43 N	23. 29 N	7. 13
7	5. 4. 57	1. 46	3. 28. 41	2. 33	22. 57	6. 59
13	5. 7. 35	1. 45	4. 0. 46	2. 24	22. 21	6. 45
19	5. 10. 12	1. 43	4. 3. 3	2. 15	21. 41	6. 33
25	5. 12. 50	1. 41	4. 5. 31	2. 7	20. 58	6. 20

J U P I T E R.

1	11. 17. 58	1. 14 S	11. 21. 56	1. 2 S	4. 9 S	22. 45
7	11. 18. 31	1. 14	11. 23. 20	1. 3	3. 37	22. 28
13	11. 19. 3	1. 15	11. 24. 42	1. 3	3. 4	22. 11
19	11. 19. 36	1. 15	11. 26. 2	1. 4	2. 33	21. 54
25	11. 20. 9	1. 15	11. 27. 21	1. 5	2. 3	21. 36

S A T U R N.

1	5. 10. 51	1. 54 N	5. 7. 21	2. 5 N	10. 45 N	9. 53
7	5. 11. 4	1. 54	5. 7. 2	2. 5	10. 52	9. 30
13	5. 11. 17	1. 55	5. 6. 45	2. 4	10. 59	9. 7
19	5. 11. 29	1. 55	5. 6. 32	2. 4	11. 2	8. 44
25	5. 11. 42	1. 55	5. 6. 23	2. 3	11. 5	8. 21

A P R I L 1773.

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Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midn.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	Th.	3. 24. 48. 15	4. 1. 19. 2	5. 8. 22 S	4. 57. 34 S
2	F.	4. 7. 56. 17	4. 14. 40. 7	4. 42. 38	4. 23. 39
3	Sa.	4. 21. 30. 35	4. 28. 27. 56	4. 0. 35	3. 33. 37
4	Su.	5. 5. 31. 58	5. 12. 42. 26	3. 3. 0	2. 29. 1
5	M.	5. 19. 58. 56	5. 27. 20. 53	1. 52. 14	1. 13. 6 S
6	Tu.	6. 4. 47. 37	6. 12. 18. 2	0. 32. 17 S	0. 9. 23 N
7	W.	6. 19. 51. 12	6. 27. 25. 51	0. 51. 8 N	1. 32. 6
8	Th.	7. 5. 0. 47	7. 12. 34. 55	2. 11. 27	2. 48. 25
9	F.	7. 20. 7. 0	7. 27. 35. 57	3. 22. 15	3. 52. 21
10	Sa.	8. 5. 0. 52	8. 12. 20. 56	4. 18. 16	4. 39. 36
11	Su.	8. 19. 35. 35	8. 26. 44. 20	4. 56. 15	5. 8. 1
12	M.	9. 3. 46. 58	9. 10. 43. 14	5. 14. 56	5. 17. 7
13	Tu.	9. 17. 33. 17	9. 24. 17. 7	5. 14. 45	5. 8. 6
14	W.	10. 0. 55. 3	10. 7. 27. 14	4. 57. 25	4. 42. 56
15	Th.	10. 13. 54. 15	10. 20. 16. 18	4. 25. 6	4. 4. 12
16	F.	10. 26. 33. 52	11. 2. 47. 19	3. 40. 36	3. 14. 37
17	Sa.	11. 8. 57. 12	11. 15. 3. 53	2. 46. 35	2. 16. 54
18	Su.	11. 21. 7. 50	11. 27. 9. 19	1. 45. 55	1. 13. 58
19	M.	0. 3. 8. 47	0. 9. 6. 35	0. 41. 21 N	0. 8. 29 N
20	Tu.	0. 15. 3. 4	0. 20. 58. 35	0. 24. 21 S	0. 56. 48 S
21	W.	0. 26. 53. 20	1. 2. 47. 38	1. 28. 33	1. 59. 18
22	Th.	1. 8. 41. 39	1. 14. 35. 45	2. 28. 41	2. 56. 30
23	F.	1. 20. 30. 10	1. 26. 25. 10	3. 22. 24	3. 46. 9
24	Sa.	2. 2. 20. 57	2. 8. 17. 56	4. 7. 29	4. 26. 12
25	Su.	2. 14. 16. 15	2. 20. 16. 25	4. 42. 8	4. 55. 0
26	M.	2. 26. 18. 37	3. 2. 23. 22	5. 4. 40	5. 10. 57
27	Tu.	3. 8. 31. 0	3. 14. 41. 56	5. 13. 47	5. 13. 0
28	W.	3. 20. 56. 35	3. 27. 15. 30	5. 8. 31	5. 0. 15
29	Th.	4. 3. 38. 56	4. 10. 7. 25	4. 48. 11	4. 32. 20
30	F.	4. 16. 41. 22	4. 23. 21. 3	4. 12. 40	3. 49. 21

Days of the Month.	Days of the Week.	D's Age.	D's Passage over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's Declinat. at Noon.	D's Declin. at Midn.
			H. M.	M. S.	D. M.	M. S.	D. M.
1	Th.	11	7. 14	115. 47	122. 26	16. 8 N	15. 3 N
2	F.	12	8. 5	129. 7	135. 50	13. 45	12. 15
3	Sa.	13	8. 58	142. 35	149. 23	10. 33	8. 41
4	Su.	14	9. 51	156. 13	163. 6	6. 39	4. 30 N
5	M.	15	10. 45	170. 3	177. 5	2. 15 N	0. 4 S
6	Tu.	16	11. 41	184. 11	191. 22	2. 24 S	4. 43
7	W.	17	12. 38	198. 39	206. 1	6. 59	9. 8
8	Th.	18	13. 36	213. 28	221. 0	11. 9	12. 57
9	F.	19	14. 36	228. 36	236. 14	14. 33	15. 52
10	Sa.	20	15. 35	243. 53	251. 31	16. 55	17. 41
11	Su.	21	16. 34	259. 5	266. 35	18. 8	18. 18
12	M.	22	17. 30	273. 58	281. 13	18. 10	17. 46
13	Tu.	23	18. 24	288. 19	295. 15	17. 7	16. 14
14	W.	24	19. 15	302. 1	308. 38	15. 8	13. 52
15	Th.	25	20. 3	315. 4	321. 22	12. 26	10. 53
16	F.	26	20. 49	327. 32	333. 34	9. 13	7. 28
17	Sa.	27	21. 34	339. 31	345. 22	5. 39	3. 47
18	Su.	28	22. 17	351. 9	356. 54	1. 54 S	0. 0
19	M.	29	23. 0	2. 37	8. 19	1. 53 N	3. 45 N
20	Tu.	30	23. 44	14. 1	19. 44	5. 34	7. 19
21	W.	1	♂	25. 29	31. 17	9. 0	10. 35
22	Th.	2	0. 28	37. 7	43. 1	12. 4	13. 25
23	F.	3	1. 13	48. 59	55. 1	14. 38	15. 42
24	Sa.	4	1. 59	61. 7	67. 17	16. 36	17. 20
25	Su.	5	2. 47	73. 31	79. 48	17. 52	18. 12
26	M.	6	3. 35	86. 8	92. 30	18. 20	18. 16
27	Tu.	7	4. 24	98. 55	105. 22	17. 59	17. 28
28	W.	8	5. 14	111. 50	118. 19	16. 45	15. 49
29	Th.	9	6. 3	124. 48	131. 19	14. 41	13. 21
30	F.	10	6. 54	137. 51	144. 25	11. 50	10. 8

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Days of the Month.	Days of the Week.	Semid. p at Noon.	Semid. p at Midnight.	Hor. Par. p at Noon.	Hor. Par. p at Midnight.	Propor. Lo- gar. at Noon.	Propor. Lo- gar. at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	Th.	15. 28	15. 35	56. 44	57. 12	5014	4979
2	F.	15. 43	15. 51	57. 40	58. 9	4943	4907
3	Sa.	15. 58	16. 6	58. 37	59. 6	4872	4837
4	Su.	16. 14	16. 21	59. 34	60. 0	4802	4771
5	M.	16. 27	16. 33	60. 24	60. 44	4742	4718
6	Tu.	16. 38	16. 41	61. 1	61. 13	4698	4684
7	W.	16. 43	16. 44	61. 21	61. 24	4675	4671
8	Th.	16. 44	16. 42	61. 23	61. 16	4672	4680
9	F.	16. 39	16. 35	61. 5	60. 50	4693	4711
10	Sa.	16. 30	16. 24	60. 32	60. 11	4733	4758
11	Su.	16. 18	16. 11	59. 48	59. 23	4786	4816
12	M.	16. 4	15. 55	58. 57	58. 30	4848	4881
13	Tu.	15. 49	15. 42	58. 4	57. 39	4913	4945
14	W.	15. 36	15. 29	57. 14	56. 50	4976	5006
15	Th.	15. 23	15. 18	56. 28	56. 7	5035	5062
16	F.	15. 12	15. 8	55. 48	55. 31	5086	5108
17	Sa.	15. 3	15. 0	55. 16	55. 1	5128	5148
18	Su.	14. 56	14. 53	54. 49	54. 38	5163	5178
19	M.	14. 51	14. 48	54. 29	54. 21	5190	5201
20	Tu.	14. 47	14. 45	54. 14	54. 9	5210	5217
21	W.	14. 44	14. 44	54. 5	54. 3	5222	5225
22	Th.	14. 43	14. 44	54. 2	54. 2	5226	5226
23	F.	14. 44	14. 45	54. 4	54. 6	5223	5221
24	Sa.	14. 46	14. 47	54. 11	54. 17	5214	5206
25	Su.	14. 49	14. 52	54. 24	54. 34	5197	5183
26	M.	14. 55	14. 59	54. 45	54. 58	5160	5152
27	Tu.	15. 3	15. 8	55. 14	55. 31	5130	5108
28	W.	15. 13	15. 19	55. 50	56. 11	5084	5056
29	Th.	15. 25	15. 32	56. 34	56. 59	5027	4995
30	F.	15. 39	15. 46	57. 26	57. 53	4961	4927

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A P R I L 1773.

Distances of β 's Center from \odot , and from Stars east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Regulus.	32. 19. 40	30. 43. 58	29. 7. 51	27. 31. 21
2		19. 25. 34	17. 48. 12	16. 10. 55	14. 33. 46
3	Spica α	59. 6. 57	57. 23. 29	55. 39. 35	53. 55. 14
4		45. 7. 2	43. 20. 7	41. 32. 48	39. 45. 5
5		30. 41. 10	28. 51. 22	27. 1. 19	25. 11. 2
6		15. 57. 31			
6	Antares.	61. 51. 33	60. 0. 35	58. 9. 29	56. 18. 13
7		47. 1. 1	45. 9. 38	43. 18. 23	41. 27. 19
8		32. 16. 28	30. 27. 48	28. 39. 46	26. 52. 30
9	α Aquilæ.	69. 36. 38	67. 55. 31	66. 14. 55	64. 34. 53
10		56. 24. 43	54. 49. 4	53. 14. 21	51. 40. 36
11	β Capri corni.	41. 8. 22	39. 20. 59	37. 33. 59	35. 47. 22
12		27. 0. 14	25. 16. 0	23. 32. 11	21. 48. 46
13	γ Pegasi.	62. 36. 19	61. 1. 16	59. 26. 46	57. 52. 49
11	The Sun.		120. 28. 49	118. 49. 7	117. 9. 49
12		108. 59. 16	107. 22. 22	105. 45. 52	104. 9. 45
13		96. 15. 0	94. 41. 13	93. 7. 48	91. 34. 45
14		83. 54. 50	82. 23. 54	80. 53. 18	79. 23. 2
15		71. 56. 12	70. 27. 44	68. 59. 32	67. 31. 37
16		60. 15. 51	58. 49. 27	57. 23. 17	55. 57. 20
17		48. 40. 33	47. 25. 47	46. 1. 11	44. 36. 45
23	Pollux.	60. 19. 34	58. 53. 22	57. 27. 14	56. 1. 9
24		48. 51. 56	47. 26. 20	46. 0. 51	44. 35. 30
25		37. 31. 15			
25	Regulus.	72. 30. 47	71. 1. 24	69. 31. 56	68. 2. 22
26		60. 32. 54	59. 2. 37	57. 32. 10	56. 1. 34
27		48. 26. 12	46. 54. 36	45. 22. 49	43. 50. 50
28		36. 7. 51	34. 34. 36	33. 1. 7	31. 27. 26
29		23. 36. 8			
29	Spica α	76. 55. 3	75. 18. 50	73. 42. 17	72. 5. 22
30		63. 55. 26	62. 16. 21	60. 36. 53	58. 57. 1
M. 1		50. 31. 35			

Distances of γ 's Center from \odot , and from Stars east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Regulus.	25. 54. 33	24. 17. 30	22. 40. 17	21. 2. 59
2		12. 56. 50			
3	Spica π	65. 56. 16	64. 14. 37	62. 32. 31	60. 49. 58
4		52. 10. 27	50. 25. 14	48. 39. 35	46. 53. 31
5		37. 57. 0	36. 8. 33	34. 19. 45	32. 30. 37
6		23. 20. 34	21. 29. 56	19. 39. 13	17. 48. 25
7	Antares.	54. 26. 50	52. 35. 23	50. 43. 55	48. 52. 27
8		39. 36. 28	37. 45. 52	35. 55. 35	34. 5. 46
9		25. 6. 4			
10	α Aquilæ.	76. 25. 17	74. 42. 35	73. 0. 13	71. 18. 13
11		62. 55. 27	61. 16. 39	59. 38. 34	58. 1. 14
12		50. 7. 52			
13	β Capri- corni.	48. 21. 49	46. 32. 52	44. 44. 19	42. 56. 9
14		34. 1. 9	32. 15. 19	30. 29. 53	28. 44. 52
15		20. 5. 46			
16	α Pegasi.	69. 1. 44	67. 24. 37	65. 48. 0	64. 11. 54
17		56. 19. 27			
18	The Sun.	115. 30. 55	113. 52. 24	112. 14. 18	110. 36. 35
19		102. 34. 2	100. 58. 42	99. 23. 45	97. 49. 11
20		90. 2. 4	88. 29. 44	86. 57. 45	85. 26. 7
21		77. 53. 4	76. 23. 24	74. 54. 2	73. 24. 58
22		66. 3. 58	64. 36. 34	63. 9. 25	61. 42. 30
23		54. 31. 36	53. 6. 3	51. 40. 41	50. 15. 31
24		43. 12. 30	41. 48. 25	40. 24. 28	39. 0. 41
25	Pollux.	54. 35. 9	53. 9. 13	51. 43. 22	50. 17. 36
26		43. 10. 18	41. 45. 16	40. 20. 24	38. 55. 43
27	Regulus.	66. 32. 42	65. 2. 56	63. 33. 3	62. 3. 2
28		54. 30. 49	52. 59. 55	51. 28. 51	49. 57. 37
29		42. 18. 39	40. 46. 16	39. 13. 40	37. 40. 52
30	Spica π	29. 53. 33	28. 19. 29	26. 45. 13	25. 10. 46
31		70. 28. 6	68. 50. 29	67. 12. 30	65. 34. 9
		57. 16. 46	55. 36. 5	53. 54. 59	52. 13. 29

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A P R I L 1773.

Distances of γ 's Center from \odot , and from Stars west of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1 2	The Sun.	102. 41. 10 114. 47. 55	104. 10. 34 116. 20. 40	105. 40. 22 117. 53. 51	107. 10. 35 119. 27. 28
1 2 3	Aldebaran.	47. 57. 59 61. 3. 17 74. 36. 9	49. 34. 42 62. 43. 22 76. 19. 46	51. 11. 49 64. 23. 53 78. 3. 50	52. 49. 20 66. 4. 50 79. 48. 22
4 5	Pollux.	46. 23. 23 60. 22. 53	48. 6. 17 62. 10. 9	49. 49. 48 63. 57. 52	51. 33. 56 65. 46. 0
6 7 8 9	Regulus.	38. 7. 17 53. 10. 0 68. 19. 38 83. 25. 1	39. 59. 19 55. 3. 36 70. 13. 16	41. 51. 38 56. 57. 15 72. 6. 48	43. 44. 10 58. 50. 58 74. 0. 13
9 10 11 12	Spica κ	29. 54. 36 44. 44. 51 59. 15. 38 73. 22. 29	31. 46. 41 46. 34. 54 61. 2. 51	33. 38. 35 48. 24. 37 62. 49. 40	35. 30. 15 50. 14. 0 64. 36. 7
12 13 14 15	Antares.	28. 51. 20 42. 3. 16 55. 4. 29 67. 49. 26	30. 30. 23 43. 41. 43 56. 41. 0	32. 9. 28 45. 19. 56 58. 17. 15	33. 48. 35 46. 57. 57 59. 53. 14
15 16 17 18	β Capricorn.	12. 58. 59 25. 37. 52 38. 1. 55 50. 14. 27	14. 34. 45 27. 11. 36 39. 34. 4	16. 10. 15 28. 45. 6 41. 6. 1	17. 45. 29 30. 18. 23 42. 37. 48
18 19 20	α Aquilæ.	56. 58. 31 67. 38. 54 78. 26. 11	58. 17. 55 68. 59. 34	59. 37. 33 70. 20. 19	60. 57. 22 71. 41. 9
25 26 27 28 29 30 M.1	The Sun.	38. 59. 3 50. 0. 8 61. 10. 49 72. 34. 38 84. 15. 41 96. 17. 41 108. 44. 10	40. 21. 19 51. 23. 22 62. 35. 30 74. 1. 15 85. 44. 42 97. 49. 36	41. 43. 40 52. 46. 47 64. 0. 24 75. 28. 9 87. 14. 4 99. 21. 54	43. 6. 7 54. 10. 21 65. 25. 31 76. 55. 20 88. 43. 46 100. 54. 36
30 M.1	Aldebaran.	69. 47. 40 83. 12. 51	71. 26. 54	73. 6. 31	74. 46. 32

A P R I L 1773.

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Distances of γ 's Center from \odot , and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	108. 41. 12	110. 12. 15	111. 43. 43	113. 15. 37
2		121. 1. 32			
1	Aldebaran.	54. 27. 17	56. 5. 39	57. 44. 26	59. 23. 39
2		67. 45. 13	69. 28. 2	71. 10. 17	72. 53. 0
3		81. 33. 23			
3	Pollux.	39. 38. 53	41. 18. 54	42. 59. 40	44. 41. 10
4		53. 18. 41	55. 3. 58	56. 49. 46	58. 36. 5
5		67. 34. 33			
5	Regulus.	30. 42. 27	32. 33. 7	34. 24. 10	36. 15. 33
6		45. 36. 59	47. 30. 3	49. 23. 15	51. 16. 33
7		60. 44. 44	62. 38. 30	64. 32. 14	66. 25. 57
8		75. 53. 32	77. 46. 41	79. 39. 40	81. 32. 26
9	Spica μ	37. 21. 42	39. 12. 54	41. 3. 52	42. 54. 29
10		52. 3. 3	53. 51. 45	55. 40. 4	57. 28. 2
11		66. 22. 10	68. 7. 50	69. 53. 7	71. 38. 0
12	Antares.	35. 27. 42	37. 6. 46	38. 45. 44	40. 24. 33
13		48. 35. 45	50. 13. 18	51. 50. 37	53. 27. 41
14		61. 28. 58	63. 4. 27	64. 39. 41	66. 14. 41
15	β Capricorni.	19. 20. 28	20. 55. 11	22. 29. 40	24. 3. 53
16		31. 51. 28	33. 24. 22	34. 57. 4	36. 29. 35
17		44. 9. 26	45. 40. 54	47. 12. 13	48. 43. 24
18	α Aquilæ.	62. 17. 22	63. 37. 33	64. 57. 52	66. 18. 19
19		73. 2. 4	74. 23. 2	75. 44. 3	77. 5. 7
25	The Sun.	44. 28. 40	45. 51. 20	47. 14. 8	48. 37. 4
26		55. 34. 5	56. 57. 59	58. 22. 4	59. 46. 21
27		66. 50. 51	68. 16. 25	69. 42. 14	71. 8. 18
28		78. 22. 48	79. 50. 33	81. 18. 37	82. 47. 0
29		90. 13. 49	91. 44. 14	93. 15. 1	94. 46. 10
30		102. 27. 41	104. 1. 11	105. 35. 6	107. 9. 26
29	Aldebaran.	63. 14. 28	64. 52. 13	66. 30. 20	68. 8. 49
30		76. 26. 58	78. 7. 48	79. 49. 3	81. 30. 44

Configurations of the SATELLITES of JUPITER
at 5 o' th' Clock in the Morning.

1				⊙	1.	1.	7.	4.
2	3.		1.	⊙				4.
3		3.		⊙	2.			4.
4		3.	1.	⊙		2.	4.	
5			2.	⊙	1.	4.		
6	1.0		4.	⊙		3.		
7		4.	1.	⊙		2.	3.	
8		4.		⊙	1.	1.	3.	
9	3.		2.	⊙				3.
10	4.		3.	⊙		1.		2.0
11	4.	3.	1.	⊙		2.		
12		4.	2.	⊙		1.		
13			4.	⊙	1.	3.		
14	1.0 4.0			⊙		2.	3.	
15				⊙	1.	2.	4.	3.

Configurations of the SATELLITES of JUPITER
at a Quarter after 4 o' th' Clock in the Morning.

16			1.	⊙	1.			4.
17			3.	⊙		2.		4.
18		3.	1.	⊙		2.		4.
19			3.	⊙	1.			4.
20	3.0		2.	⊙				3.
21				⊙	1.	2.	3.	4.
22	1.0			⊙	4.	2.	3.	
23			2.	⊙		3.		
24		4.	3.	⊙		1.		
25		4.	3.	⊙		2.		
26	4.		3.	⊙		1.		2.
27	4.		2.	⊙				3.0
28	4.			⊙	1.0 2.		3.	
29		4.		⊙		2.	3.	1.0
30			4.	⊙		2.		3.

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.
1	Sa.	<i>St. Philip and St. James.</i>	D. H. M.
2	Su.	<i>3d Sunday after Easter.</i>	Full Moon — 6. 5. 2
3	M.	<i>Inv. of +. From Easter</i>	Last Quarter — 12. 23. 28
4	Tu.	<i>[in 3 weeks, 2 ret.]</i>	New Moon — 21. 2. 43
5	W.		First Quarter — 28. 21. 23
6	Th.	<i>John Ev. ante Port. Lat.</i>	
7	F.		
8	Sa.		
9	Su.	<i>4th Sunday after Easter.</i>	Other Phenomena.
10	M.	<i>From Easter in 1 month,</i>	D.
11	Tu.	<i>[3 ret.]</i>	2. $\odot \Omega$ $13^h. 23'$.
12	W.		5. $\odot \varphi \odot$ diff. Lat. $9'$.
13	Th.		6. $\odot 4$ ad ζ \approx Im. $13^h.$
14	F.		$16\frac{1}{2}'$. * $13\frac{1}{2}'$. S. of
15	Sa.		Δ 's cent. Em. $13^h.$
			$49'$. * $14\frac{1}{2}'$. S.
			$\odot \gamma \approx 13^h. 49'$.
			$\odot \eta \approx 17^h. 21'$.
			$\odot \theta \approx 21^h. 18'$.
16	Su.	<i>Reg. Su 2. Charlotte born.</i>	7. η Stationary.
17	M.	<i>From Easter in 5 weeks,</i>	11. $\odot \beta \vee 7^h. 21'$.
18	Tu.	<i>[4 ret.]</i>	13. $\odot 6 \approx 13^h. 2'$.
19	W.	<i>Dunstan.</i>	17. $\odot \epsilon \times 4^h. 35'$.
20	Th.	<i>Asc. Day, Holy Thurs.</i>	$\odot \zeta \times 9^h. 19'$.
21	F.	<i>On mor. of Asc. 5 ret.</i>	19. $\odot \xi 1^h. 56'$.
22	Sa.	<i>Prs. Elizabeth born.</i>	20. \odot enters Π at $8^h. 22'$.
23	Su.	<i>Sund. after Ascension day.</i>	26. $\odot 1$ ad α $\approx 17^h. 47'$.
24	M.	<i>Term ends.</i>	$\odot 2$ ad α $\approx 18^h. 46'$.
25	Tu.		$\odot \kappa \approx 23^h. 31'$.
26	W.	<i>Augustin, 1st Abp. Cant.</i>	27. $\odot \phi \Omega 14^h. 27'$.
27	Th.	<i>Vener. Bede. Oxf. Ter.</i>	$\odot \pi \Omega 23^h. 43'$.
28	F.	<i>[ends.]</i>	29. $\odot \nu \Omega 21^h. 27'$.
29	Sa.	<i>K. Charles II. rest. red.</i>	
30	Su.	<i>Whit Sunday.</i>	
31	M.	<i>Whit-Monday.</i>	

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Days of the Month.	Days of the Week.	Sun's Longitude.			Sun's Right Asc. in Time.			Sun's Declin. North.			Equat. of Time. Sub.		Diff.
		S.	D.	M. S.	H.	M.	S.	D.	M.	S.	M.	S.	
1	Sa.	1.	11.	20. 44	2.	35.	38, 1	15.	15.	5	3.	10, 4	7, 3
2	Su.	1.	12.	18. 48	2.	39.	27, 3	15.	32.	58	3.	17, 7	6, 7
3	M.	1.	13.	16. 50	2.	43.	17, 1	15.	50.	35	3.	24, 4	6, 2
4	Tu.	1.	14.	14. 51	2.	47.	7, 5	16.	7.	56	3.	30, 6	5, 7
5	W.	1.	15.	12. 50	2.	50.	58, 3	16.	25.	1	3.	36, 3	5, 2
6	Th.	1.	16.	10. 47	2.	54.	49, 7	16.	41.	50	3.	41, 5	4, 5
7	F.	1.	17.	8. 42	2.	58.	41, 7	16.	58.	22	3.	46, 0	3, 9
8	Sa.	1.	18.	6. 36	3.	2.	34, 3	17.	14.	38	3.	49, 9	3, 4
9	Su.	1.	19.	4. 29	3.	6.	27, 5	17.	30.	36	3.	53, 3	2, 8
10	M.	1.	20.	2. 20	3.	10.	21, 3	17.	46.	17	3.	56, 1	2, 2
11	Tu.	1.	21.	0. 10	3.	14.	15, 6	18.	1.	41	3.	58, 3	1, 6
12	W.	1.	21.	57. 59	3.	18.	10, 5	18.	16.	46	3.	59, 9	1, 1
13	Th.	1.	22.	55. 47	3.	22.	6, 1	18.	31.	33	4.	1, 0	0, 3
14	F.	1.	23.	53. 34	3.	26.	2, 3	18.	46.	1	4.	1, 3	0, 2
15	Sa.	1.	24.	51. 20	3.	29.	59, 0	19.	0.	11	4.	1, 1	0, 7
16	Su.	1.	25.	49. 5	3.	33.	56, 3	19.	14.	2	4.	0, 4	1, 4
17	M.	1.	26.	46. 48	3.	37.	54, 3	19.	27.	32	3.	59, 0	2, 0
18	Tu.	1.	27.	44. 31	3.	41.	52, 8	19.	40.	44	3.	57, 0	2, 5
19	W.	1.	28.	42. 13	3.	45.	51, 9	19.	53.	35	3.	54, 5	3, 0
20	Th.	1.	29.	39. 53	3.	49.	51, 5	20.	6.	6	3.	51, 5	3, 7
21	F.	2.	0.	37. 33	3.	53.	51, 7	20.	18.	17	3.	47, 8	4, 2
22	Sa.	2.	1.	35. 11	3.	57.	52, 3	20.	30.	7	3.	43, 6	4, 7
23	Su.	2.	2.	32. 47	4.	1.	53, 7	20.	41.	36	3.	38, 9	5, 2
24	M.	2.	3.	30. 23	4.	5.	55, 5	20.	52.	43	3.	33, 7	5, 7
25	Tu.	2.	4.	27. 57	4.	9.	57, 7	21.	3.	30	3.	28, 0	6, 2
26	W.	2.	5.	25. 30	4.	14.	0, 5	21.	13.	54	3.	21, 8	6, 6
27	Th.	2.	6.	23. 2	4.	18.	3, 7	21.	23.	56	3.	15, 2	7, 0
28	F.	2.	7.	20. 32	4.	22.	7, 3	21.	33.	36	3.	8, 2	7, 5
29	Sa.	2.	8.	18. 1	4.	26.	11, 4	21.	42.	54	3.	0, 7	8, 0
30	Su.	2.	9.	15. 28	4.	30.	15, 9	21.	51.	49	2.	52, 7	8, 3
31	M.	2.	10.	12. 54	4.	34.	20, 9	22.	0.	22	2.	44, 4	8, 8

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Days.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	15. 54. 4	1. 5. 9	2. 25. 2	0. 003795	6. 9. 2
7	15. 53. 1	1. 6. 4	2. 24. 8	0. 004396	6. 8. 43
13	15. 51. 9	1. 6. 9	2. 24. 6	0. 004973	6. 8. 24
19	15. 50. 8	1. 7. 4	2. 24. 2	0. 005500	6. 8. 5
25	15. 49. 7	1. 7. 9	2. 23. 9	0. 005947	6. 7. 46

Eclipses of the SATELLITES of J U P I T E R.

I. Satellite. Immerfions.		II. Satellite. Immerfions.		III. Satellite.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
1	7. 11. 39	2	16. 17. 12	7	7. 25. 8 I
3	1. 40. 24	6	5. 35. 55	7	10. 24. 10 E
4	20. 9. 3	9	18. 54. 33	14	11. 26. 25 I
6	14. 37. 45	13	8. 13. 0	14	14. 24. 16 E
8	9. 6. 24	16	21. 31. 24	21	15. 27. 9 I
10	3. 34. 59	20	10. 49. 38	21	18. 23. 49 E
11	22. 3. 34	24	0. 7. 50	28	19. 27. 24 I
13	16. 32. 5	27	13. 26. 1	28	22. 22. 50 E
15	11. 0. 34	31	2. 44. 4	IV. Satellite.	
17	5. 29. 1			8	11. 52. 37 I
18	23. 57. 28			8	15. 19. 9 E
20	18. 25. 48			25	6. 10. 4 I
22	12. 54. 11			25	9. 28. 56 E
24	7. 22. 31				
26	1. 50. 48				
27	20. 19. 3				
29	14. 47. 17				
31	9. 15. 29				

Days.	Heliocentric Longitude.	Heliocentric Latitude.	Geocentric Longitude.	Geocentric Latitude.	Declination.	Pass. over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

M E R C U R Y. Greatest Elong. 28^d.

1	7. 12. 29	0. 24 N	1. 10. 26	0. 20 N	15. 17 N	23. 50
7	7. 29. 35	1. 40 S	1. 7. 1	1. 22 S	12. 35	23. 17
13	8. 16. 6	3. 32	1. 5. 29	2. 42	10. 49	22. 51
19	9. 2. 46	5. 7	1. 6. 38	3. 26	10. 30	22. 34
25	9. 20. 23	6. 19	1. 10. 19	3. 36	11. 30	22. 26

V E N U S.

1	0. 19. 18	2. 47 S	1. 2. 9	1. 11 S	11. 7 N	23. 27
7	0. 28. 53	2. 26	1. 9. 32	1. 2	13. 43	23. 32
13	1. 8. 29	2. 0	1. 16. 55	0. 50	16. 6	23. 38
19	1. 18. 6	1. 32	1. 24. 18	0. 38	18. 15	23. 43
25	1. 27. 44	0. 59	2. 1. 40	0. 25	20. 7	23. 50

M A R S.

1	5. 15. 28	1. 39 N	4. 8. 7	1. 59 N	20. 10 N	6. 8
7	5. 18. 6	1. 36	4. 10. 50	1. 52	19. 19	5. 56
13	5. 20. 45	1. 34	4. 13. 40	1. 44	18. 24	5. 44
19	5. 23. 24	1. 31	4. 16. 36	1. 38	17. 26	5. 32
25	5. 26. 3	1. 28	4. 19. 38	1. 31	16. 23	5. 20

J U P I T E R.

1	11. 20. 42	1. 15 S	11. 28. 37	1. 6 S	1. 34 S	21. 18
7	11. 21. 15	1. 16	11. 29. 51	1. 7	1. 5	20. 59
13	11. 21. 47	1. 16	0. 1. 1	1. 8	0. 38	20. 41
19	11. 22. 20	1. 16	0. 2. 9	1. 9	0. 12 S	20. 21
25	11. 22. 53	1. 16	0. 3. 12	1. 10	0. 12 N	20. 1

S A T U R N. \square 27^d. 5^h.

1	5. 11. 54	1. 56 N	5. 6. 17	2. 2 N	11. 6 N	7. 58
7	5. 12. 7	1. 56	5. 6. 15	2. 1	11. 6	7. 35
13	5. 12. 19	1. 57	5. 6. 16	2. 0	11. 5	7. 12
19	5. 12. 32	1. 57	5. 6. 22	1. 59	11. 2	6. 49
25	5. 12. 44	1. 57	5. 6. 31	1. 58	10. 58	6. 25

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Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midnight.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	Sa.	5. 0. 6. 56	5. 6. 59. 11	3. 22. 30 S	2. 52. 20 S
2	Su.	5. 13. 57. 55	5. 21. 3. 11	2. 19. 8	1. 43. 19
3	M.	5. 28. 14. 52	6. 5. 32. 48	1. 5. 23 S	0. 25. 49 S
4	Tu.	6. 12. 56. 17	6. 20. 24. 44	0. 14. 37 N	0. 55. 15 N
5	W.	6. 27. 57. 19	7. 5. 33. 1	1. 35. 12	2. 13. 42
6	Th.	7. 13. 10. 37	7. 20. 48. 45	2. 49. 59	3. 23. 11
7	F.	7. 28. 26. 4	8. 6. 1. 21	3. 52. 41	4. 17. 55
8	Sa.	8. 13. 33. 15	8. 21. 0. 38	4. 38. 26	4. 54. 0
9	Su.	8. 28. 22. 36	9. 5. 38. 16	5. 4. 29	5. 9. 52
10	M.	9. 12. 47. 9	9. 19. 49. 1	5. 10. 19	5. 6. 5
11	Tu.	9. 26. 43. 29	10. 3. 30. 46	4. 57. 26	4. 44. 43
12	W.	10. 10. 11. 0	10. 16. 44. 30	4. 28. 20	4. 8. 37
13	Th.	10. 23. 11. 40	10. 29. 33. 1	3. 46. 6	3. 21. 5
14	F.	11. 5. 49. 3	11. 12. 0. 25	2. 54. 1	2. 25. 10
15	Sa.	11. 18. 7. 36	11. 24. 11. 13	1. 55. 3	1. 23. 53
16	Su.	0. 0. 11. 56	0. 6. 10. 10	0. 52. 2 N	0. 19. 54 N
17	M.	0. 12. 6. 35	0. 18. 1. 39	0. 12. 16 S	0. 44. 11 S
18	Tu.	0. 23. 55. 49	0. 29. 49. 33	1. 15. 27	1. 45. 53
19	W.	1. 5. 43. 11	1. 11. 57. 5	2. 15. 5	2. 42. 52
20	Th.	1. 17. 31. 34	1. 23. 26. 53	3. 8. 52	3. 32. 51
21	F.	1. 29. 23. 18	2. 5. 20. 57	3. 54. 35	4. 13. 49
22	Sa.	2. 11. 20. 9	2. 17. 20. 59	4. 30. 16	4. 43. 49
23	Su.	2. 23. 23. 41	2. 29. 28. 24	4. 54. 13	5. 1. 20
24	M.	3. 5. 35. 23	3. 11. 44. 40	5. 5. 5	5. 5. 16
25	Tu.	3. 17. 56. 39	3. 24. 11. 31	5. 1. 56	4. 54. 55
26	W.	4. 0. 29. 31	4. 6. 50. 58	4. 44. 19	4. 30. 4
27	Th.	4. 13. 16. 5	4. 19. 45. 10	4. 12. 19	3. 51. 9
28	F.	4. 26. 18. 40	5. 2. 56. 48	3. 26. 41	2. 59. 14
29	Sa.	5. 9. 39. 51	5. 16. 28. 6	2. 28. 50	1. 56. 0
30	Su.	5. 23. 21. 52	6. 0. 21. 11	1. 21. 2	0. 44. 24 S
31	M.	6. 7. 26. 15	6. 14. 36. 48	0. 6. 38	0. 31. 42 N

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Days of the Month.	Days of the Week.	D's Age.	D's Passage over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's Declinat. at Noon.	D's Declin. at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	Sa.	11	7. 45	151. 0	157. 39	8. 17 N	6. 17 N
2	Su.	12	8. 36	164. 20	171. 6	4. 10 N	1. 58 N
3	M.	13	9. 29	177. 58	184. 55	0. 18 S	2. 36 S
4	Tu.	14	10. 24	192. 0	199. 12	4. 53	7. 8
5	W.	15	11. 21	206. 32	214. 0	9. 17	11. 17
6	Th.	16	12. 20	221. 36	229. 18	13. 7	14. 43
7	F.	17	13. 21	237. 5	244. 55	16. 3	17. 6
8	Sa.	18	14. 22	252. 45	260. 34	17. 51	18. 16
9	Su.	19	15. 22	268. 18	275. 55	18. 23	18. 11
10	M.	20	16. 19	283. 23	290. 40	17. 42	16. 57
11	Tu.	21	17. 13	297. 47	304. 41	15. 58	14. 46
12	W.	22	18. 3	311. 24	317. 56	13. 24	11. 53
13	Th.	23	18. 50	324. 17	330. 29	10. 14	8. 30
14	F.	24	19. 35	336. 32	342. 29	6. 41	4. 50
15	Sa.	25	20. 19	348. 20	354. 7	2. 56 S	1. 2 S
16	Su.	26	21. 2	359. 50	5. 32	0. 52 N	2. 45 N
17	M.	27	21. 46	11. 13	16. 54	4. 36	6. 24
18	Tu.	28	22. 29	22. 37	28. 22	8. 7	9. 46
19	W.	29	23. 12	34. 10	40. 2	11. 19	12. 45
20	Th.	30	23. 57	45. 57	51. 58	14. 4	15. 13
21	F.	1	♂	58. 3	64. 13	16. 13	17. 3
22	Sa.	2	0. 45	70. 26	76. 43	17. 42	18. 9
23	Su.	3	1. 33	83. 4	89. 27	18. 24	18. 27
24	M.	4	2. 22	95. 52	102. 18	18. 17	17. 53
25	Tu.	5	3. 11	108. 45	115. 12	17. 17	16. 28
26	W.	6	4. 1	121. 38	128. 4	15. 26	14. 13
27	Th.	7	4. 50	134. 31	140. 56	12. 49	11. 15
28	F.	8	5. 39	147. 22	153. 49	9. 31	7. 39
29	Sa.	9	6. 28	160. 17	166. 48	5. 39	3. 34 N
30	Su.	10	7. 18	173. 23	180. 4	1. 25 N	0. 49 S
31	M.	11	8. 9	186. 48	193. 39	2. 58 S	5. 17

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Days of the Month.	Days of the Week.	Semidr. ☽ at Noon.	Semidr. ☽ at Mid-night.	Hor. Par. ☽ at Noon.	Hor. Par. ☽ at Midnight.	Propor. Lo- gar. at Noon.	Propor. Lo- gar. at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	Sa.	15. 54	16. 2	58. 21	58. 49	4892	4858
2	Su.	16. 9	16. 17	59. 17	59. 44	4823	4790
3	M.	16. 24	16. 30	60. 10	60. 33	4759	4732
4	Tu.	16. 36	16. 40	60. 54	61. 10	4707	4687
5	W.	16. 44	16. 46	61. 23	61. 30	4672	4664
6	Th.	16. 46	16. 46	61. 33	61. 33	4660	4660
7	F.	16. 44	16. 40	61. 24	61. 11	4671	4686
8	Sa.	16. 36	16. 31	60. 55	60. 35	4705	4729
9	Su.	16. 24	16. 17	60. 11	59. 46	4758	4788
10	M.	16. 10	16. 1	59. 18	58. 46	4822	4861
11	Tu.	15. 54	15. 46	58. 21	57. 52	4892	4928
12	W.	15. 38	15. 31	57. 24	56. 57	4964	4998
13	Th.	15. 24	15. 18	56. 31	56. 8	5031	5060
14	F.	15. 12	15. 6	55. 45	55. 26	5090	5115
15	Sa.	15. 2	14. 58	55. 8	54. 54	5138	5157
16	Su.	14. 54	14. 51	54. 40	54. 29	5175	5190
17	M.	14. 48	14. 46	54. 20	54. 14	5202	5210
18	Tu.	14. 45	14. 44	54. 8	54. 5	5218	5222
19	W.	14. 44	14. 44	54. 3	54. 3	5225	5225
20	Th.	14. 44	14. 45	54. 4	54. 6	5223	5221
21	F.	14. 46	14. 48	54. 11	54. 16	5214	5207
22	Sa.	14. 49	14. 51	54. 23	54. 29	5198	5190
23	Su.	14. 53	14. 56	54. 39	54. 49	5177	5163
24	M.	14. 59	15. 3	55. 0	55. 13	5149	5132
25	Tu.	15. 7	15. 11	55. 27	55. 43	5114	5093
26	W.	15. 16	15. 20	55. 59	56. 18	5072	5048
27	Th.	15. 26	15. 32	56. 37	56. 59	5023	4995
28	F.	15. 37	15. 44	57. 20	57. 44	4968	4938
29	Sa.	15. 50	15. 57	58. 8	58. 32	4908	4878
30	Su.	16. 4	16. 10	58. 57	59. 20	4848	4820
31	M.	16. 16	16. 22	59. 43	60. 5	4792	4765

Distances of γ 's Center from \odot , and from Stars east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Spica α	50. 31. 35	48. 49. 17	47. 6. 35	45. 23. 28
2		36. 41. 42	34. 56. 7	33. 10. 9	31. 23. 49
3		22. 27. 1			
3	Antares.	68. 20. 25	66. 32. 37	64. 44. 28	62. 56. 0
4		53. 49. 26	51. 59. 25	50. 9. 12	48. 18. 51
5		39. 6. 4	37. 15. 34	35. 25. 15	33. 35. 16
6		24. 32. 34			
6	α Aquilæ.	75. 53. 39	74. 9. 57	72. 26. 27	70. 43. 12
7		62. 12. 40	60. 32. 3	58. 52. 4	57. 12. 49
8		49. 9. 45			
8	β Capri- corni.	47. 10. 1	45. 18. 0	43. 26. 18	41. 34. 56
9		32. 23. 31	30. 34. 24	28. 45. 43	26. 57. 26
10		18. 2. 29			
10	α Pegasi.	67. 7. 20	65. 27. 32	63. 48. 20	62. 9. 44
11		54. 6. 30	52. 31. 53	50. 58. 0	49. 24. 54
12		41. 52. 6			
12	α Arietis.	83. 38. 0	82. 1. 26	80. 25. 15	78. 49. 29
13		70. 56. 29			
11	The Sun.	114. 10. 55	112. 36. 11	111. 1. 52	109. 27. 58
12		101. 44. 48	100. 13. 24	98. 42. 23	97. 11. 45
13		89. 44. 9	88. 15. 41	86. 47. 34	85. 19. 45
14		78. 5. 28	76. 39. 28	75. 13. 43	73. 48. 14
15		66. 44. 34	65. 20. 31	63. 56. 40	62. 33. 1
16		55. 37. 24	54. 14. 47	52. 52. 19	51. 30. 0
17		44. 40. 14	43. 18. 38	41. 57. 7	40. 35. 42
23	Regulus.	63. 26. 12	61. 55. 48	60. 25. 17	58. 54. 39
24		51. 19. 36	49. 48. 14	48. 16. 43	46. 45. 5
25		39. 4. 39	37. 32. 7	35. 59. 26	34. 26. 36
26		26. 40. 21			
26	Spica α	80. 3. 49	78. 29. 11	76. 54. 20	75. 19. 14
27		67. 20. 8	65. 43. 33	64. 6. 41	62. 29. 33
28		54. 19. 28	52. 40. 33	51. 1. 20	49. 21. 49
29		40. 59. 29	39. 18. 3	37. 36. 17	35. 54. 12
30		27. 19. 5			
30		73. 11. 23	71. 28. 7	69. 44. 31	68. 0. 34
31	Antares.	59. 15. 59	57. 30. 12	55. 44. 9	53. 57. 58
1. 1		45. 3. 2			

Distances of γ 's Center from \odot , and from Stars east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1 2	Spica α	43. 39. 57 29. 37. 8	41. 56. 0 27. 50. 6	40. 11. 38 26. 2. 44	38. 26. 52 24. 15. 2
3 4 5	Antares.	61. 7. 13 46. 28. 23 31. 45. 35	59. 18. 9 44. 37. 48 29. 56. 26	57. 28. 49 42. 47. 11 28. 7. 47	55. 39. 14 40. 56. 36 26. 19. 49
6 7	α Aquilæ.	69. 0. 16 55. 34. 21	67. 17. 42 53. 56. 45	65. 35. 32 52. 20. 4	63. 53. 51 50. 44. 23
8 9	β Capri- corni.	39. 43. 55 25. 9. 34	37. 53. 15 23. 22. 8	36. 2. 57 21. 35. 8	34. 13. 3 19. 48. 35
10 11	α Pegasi.	60. 31. 46 47. 52. 36	58. 54. 27 46. 21. 9	57. 17. 47 44. 50. 33	55. 41. 48 43. 20. 51
12	α Arietis	77. 14. 6	75. 39. 7	74. 4. 31	72. 30. 18
10 11 12 13 14 15 16 17	The Sun.	120. 34. 9 107. 54. 30 95. 41. 30 83. 52. 17 72. 23. 1 61. 9. 34 50. 7. 49 39. 14. 22	118. 57. 42 106. 21. 28 94. 11. 38 82. 25. 8 70. 58. 3 59. 46. 17 48. 45. 45	117. 21. 41 104. 48. 50 92. 42. 7 80. 58. 17 69. 33. 20 58. 23. 10 47. 23. 48	115. 46. 5 103. 16. 37 91. 12. 57 79. 31. 44 68. 8. 50 57. 0. 12 46. 1. 57
22 23 24 25	Regulus.	69. 26. 46 57. 23. 54 45. 13. 18 32. 53. 37	67. 56. 47 55. 53. 1 43. 41. 21 31. 20. 30	66. 26. 41 54. 22. 0 42. 9. 16 29. 47. 15	64. 56. 30 52. 50. 52 40. 37. 2 28. 13. 52
26 27 28 29	Spica α	73. 43. 55 60. 52. 8 47. 41. 59 34. 11. 48	72. 8. 21 59. 14. 25 46. 1. 50 32. 29. 5	70. 32. 32 57. 36. 24 44. 21. 22 30. 46. 4	68. 56. 28 55. 58. 5 42. 40. 35 29. 2. 44
30 31	Antares.	66. 16. 16 52. 11. 18	64. 31. 39 50. 24. 32	62. 46. 43 48. 37. 34	61. 1. 30 46. 50. 24

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M A Y 1773.

Distances of Moon's Center from ☉, and from Stars west of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	108. 44. 10	110. 19. 20	111. 54. 56	113. 30. 57
2		121. 37. 22			
1	Pollux.	41. 11. 52	42. 49. 30	44. 27. 50	46. 6. 50
2		54. 31. 16	56. 13. 55	57. 57. 7	59. 40. 51
3		68. 27. 6			
3	Regulus.	31. 36. 5	33. 24. 30	35. 13. 22	37. 2. 40
4		46. 15. 18	48. 6. 55	49. 58. 51	51. 51. 5
5		61. 16. 17	63. 9. 59	65. 3. 50	66. 57. 50
6		76. 29. 18			
6	Spica ♀	23. 0. 15	24. 54. 4	26. 47. 57	28. 41. 52
7		38. 11. 12	40. 4. 48	41. 58. 15	43. 51. 32
8		53. 14. 38	55. 6. 24	56. 57. 52	58. 49. 0
9		67. 59. 29	69. 48. 25	71. 36. 56	73. 25. 3
10	Antares.	82. 19. 17			
10		37. 25. 1	39. 7. 30	40. 49. 42	42. 31. 39
11		50. 57. 7	52. 37. 18	54. 17. 9	55. 56. 39
12		64. 8. 46	65. 46. 7	67. 23. 8	68. 59. 48
13	3 Capri- corni.	76. 58. 0			
13		22. 15. 52	23. 51. 44	25. 27. 16	27. 2. 28
14		34. 53. 44	36. 27. 8	38. 0. 16	39. 33. 9
15	α Aquilæ.	47. 13. 57			
15		54. 25. 16	55. 44. 19	57. 3. 35	58. 23. 3
16		65. 2. 58	66. 23. 18	67. 43. 42	69. 4. 11
17		75. 47. 27	77. 8. 14	78. 29. 2	79. 49. 50
18	Fomal- haut.	86. 33. 55			
18		55. 32. 30	56. 49. 40	58. 7. 6	59. 24. 51
19	The Sun.	65. 57. 38	67. 16. 53	68. 36. 20	69. 56. 0
25		43. 42. 39	45. 8. 5	46. 33. 44	47. 59. 35
26		55. 12. 13	56. 39. 27	58. 6. 55	59. 34. 38
27		66. 56. 59	68. 26. 15	69. 55. 49	71. 25. 39
28		78. 59. 21	80. 31. 1	82. 3. 0	83. 35. 19
29		91. 21. 47	92. 56. 5	94. 30. 44	96. 5. 44
30		104. 6. 9	105. 43. 18	107. 20. 49	108. 58. 41
31	Regulus.	117. 13. 21	118. 53. 19	120. 33. 35	
29		13. 18. 25	14. 56. 26	16. 35. 21	18. 15. 6
30		26. 44. 32	28. 28. 4	30. 12. 5	31. 56. 35
31		40. 45. 35	42. 32. 35	44. 19. 57	46. 7. 42
1		55. 11. 48			

M A Y 1773.

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Distances of γ 's center from \odot , and from stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	115. 7. 23	116. 44. 14	118. 21. 31	119. 59. 14
1	Pollux.	47. 46. 29	49. 26. 46	51. 7. 40	52. 49. 10
2		61. 25. 7	63. 9. 53	64. 55. 5	66. 40. 53
3	Regulus.	38. 52. 25	40. 42. 35	42. 35. 6	44. 24. 1
4		53. 43. 38	55. 36. 27	57. 29. 30	59. 22. 47
5		68. 51. 58	70. 46. 13	72. 40. 31	74. 34. 53
6	Spica 𐌆	30. 35. 49	32. 29. 45	34. 23. 38	36. 17. 27
7		45. 44. 38	47. 37. 31	49. 30. 9	51. 22. 32
8		60. 39. 48	62. 30. 16	64. 20. 23	66. 10. 7
9		75. 12. 47	77. 0. 4	78. 46. 54	80. 33. 18
10	Antares.	44. 13. 20	45. 54. 44	47. 35. 50	49. 16. 37
11		57. 35. 49	59. 14. 35	60. 53. 0	62. 31. 4
12		70. 36. 7	72. 12. 6	73. 47. 44	75. 23. 2
13	β Capri- corni.	28. 37. 18	30. 11. 51	31. 46. 6	33. 20. 4
14		41. 5. 46	42. 38. 9	44. 10. 20	45. 42. 16
15	α Aquilæ.	59. 42. 44	61. 2. 35	62. 22. 35	63. 42. 43
16		70. 24. 44	71. 45. 21	73. 6. 0	74. 26. 42
17		81. 10. 39	82. 31. 29	83. 52. 18	85. 13. 7
18	Fomal- haut.	60. 42. 54	62. 1. 13	63. 19. 47	64. 38. 36
19		71. 15. 48			
24	The Sun.		39. 27. 34	40. 52. 24	42. 17. 25
25		49. 25. 40	50. 51. 58	52. 18. 29	53. 45. 14
26		61. 2. 35	62. 30. 48	63. 59. 16	65. 28. 0
27		72. 55. 47	74. 26. 13	75. 56. 57	77. 28. 0
28		85. 7. 57	86. 40. 54	88. 14. 12	89. 47. 49
29		97. 41. 6	99. 16. 50	100. 52. 55	102. 29. 21
30		110. 36. 54	112. 15. 30	113. 54. 26	115. 33. 43
29	Regulus.	19. 55. 39	21. 36. 55	23. 18. 51	25. 1. 25
30		33. 41. 32	35. 26. 55	37. 12. 44	38. 58. 57
31		47. 55. 49	49. 44. 18	51. 33. 7	53. 22. 17

Configurations of the SATELLITES of JUPITER
at half an Hour past 3 o'clock in the Morning.

1	4.0		2.	1.	⊙	1.			
2		3.		1.	⊙		2.	4.	
3			3.		⊙	2.	1.		4.
4				2.	1.	3.	⊙		4.
5	2.0				⊙	1.	3.		4.
6					1.	⊙		3.	4.
7	1.0			2.	⊙		3.		4.
8				2.	3.	⊙	1.		4.
9			3.		1.	⊙	4.	2.	
10			3.		4.	⊙	2.	1.	
11			4.	2.	3.	1.	⊙		
12		4.				⊙	1.	3.	2.0
13	4.				1.	⊙		2.	3.
14	4.				2.	⊙	1.		3.
15		4.		2.		⊙	1.		1.0
16		4.	3.		1.	⊙		2.	
17			3.	4.		⊙	1.	2.	
18					2.	3.	1.	4.	
19					2.	⊙	3.	1.	4.
20					1.	⊙		2.	3.
21	2.0					⊙	1.		3.
22	3.0			2.	1.	⊙			4.
23	1.0			3.		⊙		2.	4.
24				3.		⊙	1.	2.	4.
25				3.	2.	1.	⊙		4.
26					2.	⊙	3.	4.	1.
27					1.	⊙		2.	3.
28				4.		⊙	1.		3.
29				4.	2.	1.	⊙	3.	
30	4.			3.		⊙	2.		1.0
31	4.		3.			⊙		2.	1.0

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.	
			D. H. M.	
			Full Moon	— 4. 12. 17.
			Last Quarter	— 11. 13. 1.
			New Moon	— 19. 17. 8.
			First Quarter	— 27. 4. 20.
			Other Phenomena.	
			D.	
1	Tu.	Nicomede.	1. \odot \propto Υ 15 ^h . 24 ^l .	
2	W.		3. \odot 4 ad ζ 0 ^h . 19 ^l .	
3	Th.		\odot γ 0 ^h . 28 ^l .	
4	F.	K. George III. born 1738.	\odot η 4 ^h . 2 ^l .	
5	Sa.	Boniface.	\odot θ 8 ^h . 0 ^l .	
6	Su.	Trinity-Sunday.	\odot ϕ Serpent. 21 ^h . 58 ^l .	
7	M.	On mor. of H. Trin. 1	7. δ α Ω diff. Lat. 50 ^l .	
8	Tu.	[ret.	\odot β Ψ 16 ^h . 29 ^l .	
9	W.	Oxford Term begins.	9. \odot θ 20 ^h . 43 ^l .	
10	Th.	Prs. Amelia born.	12. \odot infra corn. bor. δ	
11	F.	St. Barnabas. Tr. Term	diff. Lat. 47 ^l .	
12	Sa.	[begins	\odot Ψ 18 ^h . 22 ^l .	
13	Su.	1st Sunday after Trinity.	13. \odot ζ \propto 15 ^h . 43 ^l .	
14	M.	In 8 days of H. Trin. 2	17. δ γ Υ diff. Lat. 38 ^l .	
15	Tu.	[ret.	\odot 1 ad δ θ 14 ^h . 57 ^l .	
16	W.		\odot 2 ad η θ 15 ^h . 28 ^l .	
17	Th.	S. Alban.	19. δ ϵ Ω diff. Lat. 57 ^l .	
18	F.		20. \odot enters \S at 17 ^h . 8 ^l .	
19	Sa.	— [Ed. K. W. S.	23. \odot 2 ad α \S 0 ^h . 11 ^l .	
20	Su.	2d Su. after Trin. Tr. of	\odot ξ Ω 15 ^h . 2 ^l .	
21	M.	In 15 days of H. Trin.	\odot θ Ω 19 ^h . 49 ^l .	
22	Tu.	[3 ret.	24. \odot π Ω 5 ^h . 5 ^l .	
23	W.		25. \odot τ Ω 21 ^h . 4 ^l .	
24	Th.	St. John Baptist.	27. \odot θ Υ 19 ^h . 5 ^l .	
25	F.		28. \odot κ Υ 23 ^h . 10 ^l .	
26	Sa.		31. \odot 4 ad ζ 9 ^h . 7 ^l .	
			\odot γ 9 ^h . 17 ^l .	
27	Su.	3d Sunday after Trinity.	\odot η 12 ^h . 57 ^l .	
28	M.	In 3 weeks of H. Trin.	\odot θ 17 ^h . 3 ^l .	
29	Tu.	St. Peter. [4 ret.		
30	W.	Term ends.		

Day of the Month.	Days of the Week.	Sun's Longitude.	Sun's Right Asc. in Time.	Sun's Declin. North.	Equat. of Time. Sub.	Diff.
		S. D. M. S.	H. M. S.	D. M. S.	M. S.	S.
1	Tu.	2. 11. 10. 18	4. 38. 26, 1	22. 8. 30	2. 35, 7	
2	W.	2. 12. 7. 42	4. 42. 31, 8	22. 16. 16	2. 26, 6	9, 1
3	Th.	2. 13. 5. 5	4. 46. 37, 9	22. 23. 39	2. 17, 1	9, 5
4	F.	2. 14. 2. 26	4. 50. 44, 3	22. 30. 39	2. 7, 2	9, 9
5	Sa.	2. 14. 59. 47	4. 54. 51, 1	22. 37. 15	1. 57, 0	10, 2
6	Su.					10, 4
7	M.	2. 15. 57. 7	4. 58. 58, 1	22. 43. 27	1. 46, 6	10, 8
8	Tu.	2. 16. 54. 26	5. 3. 5, 5	22. 49. 16	1. 35, 8	11, 1
9	W.	2. 17. 51. 45	5. 7. 13, 2	22. 54. 40	1. 24, 7	11, 4
10	Th.	2. 18. 49. 3	5. 11. 21, 2	22. 59. 41	1. 13, 3	11, 7
		2. 19. 46. 21	5. 15. 29, 4	23. 4. 17	1. 1, 6	11, 9
11	F.	2. 20. 43. 39	5. 19. 37, 9	23. 8. 29	0. 49, 7	12, 1
12	Sa.	2. 21. 40. 56	5. 23. 46, 6	23. 12. 17	0. 37, 6	12, 4
13	Su.	2. 22. 38. 13	5. 27. 55, 5	23. 15. 40	0. 25, 2	12, 5
14	M.	2. 23. 35. 30	5. 32. 4, 6	23. 18. 39	0. 12, 7	12, 7
15	Tu.	2. 24. 32. 47	5. 36. 13, 9	23. 21. 13	Add 0, 0	12, 8
16	W.	2. 25. 30. 3	5. 40. 23, 3	23. 23. 22	0. 12, 8	13, 0
17	Th.	2. 26. 27. 20	5. 44. 32, 8	23. 25. 7	0. 25, 8	13, 0
18	F.	2. 27. 24. 36	5. 48. 42, 4	23. 26. 27	0. 38, 8	13, 0
19	Sa.	2. 28. 21. 52	5. 52. 52, 1	23. 27. 22	0. 51, 8	13, 0
20	Su.	2. 29. 19. 7	5. 57. 1, 7	23. 27. 52	1. 4, 8	13, 1
21	M.	3. 0. 16. 22	6. 1. 11, 4	23. 27. 57	1. 17, 9	13, 0
22	Tu.	3. 1. 13. 37	6. 5. 21, 0	23. 27. 37	1. 30, 9	12, 9
23	W.	3. 2. 10. 51	6. 9. 30, 5	23. 26. 53	1. 43, 8	12, 9
24	Th.	3. 3. 8. 5	6. 13. 40, 0	23. 25. 44	1. 56, 7	12, 7
25	F.	3. 4. 5. 18	6. 17. 49, 3	23. 24. 10	2. 9, 4	12, 6
26	Sa.	3. 5. 2. 31	6. 21. 58, 5	23. 22. 12	2. 22, 0	12, 4
27	Su.	3. 5. 59. 43	6. 26. 7, 4	23. 19. 48	2. 34, 4	12, 3
28	M.	3. 6. 56. 54	6. 30. 16, 3	23. 17. 1	2. 46, 7	12, 0
29	Tu.	3. 7. 54. 6	6. 34. 24, 9	23. 13. 48	2. 58, 7	11, 7
30	W.	3. 8. 51. 17	6. 38. 33, 2	23. 10. 12	3. 10, 4	

Days of the Month.	Semidia-meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	15. 48, 8	1. 8, 3	2. 23, 6	0. 006372	6. 7. 24
7	15. 48, 1	1. 8, 6	2. 23, 3	0. 006684	6. 7. 5
13	15. 47, 5	1. 8, 7	2. 23, 2	0. 006944	6. 6. 45
19	15. 47, 1	1. 8, 8	2. 23, 0	0. 007132	6. 6. 26
25	15. 46, 9	1. 8, 8	2. 23, 0	0. 007221	6. 6. 7

Eclipses of the SATELLITES of J U P I T E R.

I. Satellite Immerfions.		II. Satellite Immerfions.		III. Satellite.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
2	3. 43. 42	3	16. 2. 13	4	23. 27. 9 I
3	22. 11. 50	7	5. 20. 13	5	2. 21. 21 E
5	16. 39. 56	10	18. 38. 11	12	3. 26. 43 I
7	11. 8. 5	14	7. 56. 7	12	6. 19. 40 E
9	5. 36. 10	17	21. 13. 57	19	7. 26. 1 I
11	0. 4. 18	21	10. 31. 49	19	10. 17. 43 E
12	18. 32. 20	24	23. 49. 31	26	11. 25. 21 I
14	13. 0. 23	28	13* 7. 28	26	14* 15. 48 E
16	7. 28. 26			IV. Satellite.	
18	1. 56. 29				
19	20. 24. 30				
21	14* 52. 35			11	0. 25. 6 I
23	9. 20. 34			11	3. 35. 53 E
25	3. 48. 35			27	18. 39. 44 I
26	22. 16. 39			27	21. 42. 0 E
28	16. 44. 48				
30	11. 12. 46				

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JUNE 1773.

Days.	Heliocentric Longitude.	Heliocentric Latitude.	Geocentric Longitude.	Geocentric Latitude.	Declination.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

MERCURY. Sup. δ 28^h. 21^h.

1	10. 13. 18	6. 59 S	1. 17. 21	3. 12 S	13. 58 N	22. 26
7	11. 6. 14	6. 33	1. 25. 25	2. 27	16. 46	22. 34
13	0. 3. 34	4. 43	2. 5. 13	1. 26	19. 47	22. 50
19	1. 6. 12	1. 10 S	2. 16. 38	0. 48 S	23. 30	23. 14
25	2. 13. 7	3. 13 N	2. 29. 16	0. 45 N	24. 13	23. 45

VENUS. Sup. δ 4^d. 7^h.

1	2. 9. 0	0. 20 S	2. 10. 16	0. 8 S	21. 53 N	23. 57
7	2. 18. 41	0. 14 N	2. 17. 39	0. 6 N	22. 59	0. 3
13	2. 28. 23	0. 48	2. 25. 1	0. 20	23. 42	0. 10
19	3. 8. 5	1. 21	3. 2. 23	0. 34	24. 0	0. 18
25	3. 17. 49	1. 51	3. 9. 46	0. 46	23. 53	0. 25

MARS.

1	5. 29. 11	1. 24 N	4. 23. 16	1. 24 N	15. 0 N	5. 5
7	6. 1. 52	1. 20	4. 26. 28	1. 18	13. 56	4. 53
13	6. 4. 34	1. 17	4. 29. 44	1. 12	12. 42	4. 41
19	6. 7. 17	1. 13	5. 3. 4	1. 7	11. 26	4. 28
25	6. 10. 1	1. 9	5. 6. 27	1. 1	10. 6	4. 16

JUPITER. \square 29^d. 1^h.

1	11. 23. 31	1. 16 S	0. 4. 22	1. 12 S	0. 38 N	19. 37
7	11. 24. 4	1. 17	0. 5. 17	1. 13	0. 59	19. 15
13	11. 24. 37	1. 17	0. 6. 7	1. 15	1. 17	18. 53
19	11. 25. 10	1. 17	0. 6. 52	1. 16	1. 34	18. 31
25	11. 25. 43	1. 17	0. 7. 32	1. 17	1. 49	18. 9

SATURN.

1	5. 12. 59	1. 58 N	5. 6. 46	1. 57 N	10. 51 N	5. 58
7	5. 13. 12	1. 58	5. 7. 3	1. 56	10. 44	5. 34
13	5. 13. 24	1. 58	5. 7. 23	1. 56	10. 36	5. 11
19	5. 13. 37	1. 59	5. 7. 46	1. 55	10. 27	4. 47
25	5. 13. 49	1. 59	5. 8. 12	1. 54	10. 16	4. 24

JUNE 1773.

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Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midnight.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	Tu.	6. 21. 52. 47	6. 29. 13. 46	1. 9. 58 N	1. 47. 22 N
2	W.	7. 6. 39. 16	7. 14. 8. 23	2. 23. 31	2. 57. 19
3	Th.	7. 21. 40. 19	7. 29. 13. 54	3. 28. 12	3. 55. 31
4	F.	8. 6. 47. 56	8. 14. 21. 9	4. 18. 42	4. 37. 17
5	Sa.	8. 21. 52. 11	8. 29. 19. 54	4. 50. 56	4. 59. 30
6	Su.	9. 6. 43. 7	9. 14. 0. 54	5. 2. 58	5. 1. 24
7	M.	9. 21. 12. 17	9. 28. 16. 56	4. 55. 4	4. 44. 17
8	Tu.	10. 5. 14. 24	10. 12. 4. 34	4. 29. 23	4. 10. 53
9	W.	10. 18. 47. 22	10. 25. 23. 5	3. 49. 12	3. 24. 47
10	Th.	11. 1. 52. 4	11. 8. 14. 45	2. 58. 7	2. 29. 36
11	F.	11. 14. 31. 44	11. 20. 43. 29	1. 59. 42	1. 28. 44
12	Sa.	11. 26. 50. 47	0. 2. 54. 12	0. 57. 9 N	0. 25. 14 N
13	Su.	0. 8. 54. 30	0. 14. 52. 10	0. 6. 40 S	0. 38. 15 S
14	M.	0. 20. 48. 2	0. 26. 42. 39	1. 9. 15	1. 39. 22
15	Tu.	1. 2. 36. 32	1. 8. 30. 20	2. 8. 17	2. 35. 50
16	W.	1. 14. 24. 34	1. 20. 19. 32	3. 1. 41	3. 25. 34
17	Th.	1. 26. 15. 45	2. 2. 13. 31	3. 47. 18	4. 6. 37
18	F.	2. 8. 13. 7	2. 14. 14. 49	4. 23. 16	4. 37. 4
19	Sa.	2. 20. 18. 41	2. 26. 25. 3	4. 47. 47	4. 55. 18
20	Su.	3. 2. 33. 50	3. 8. 45. 14	4. 59. 22	4. 59. 59
21	M.	3. 14. 59. 14	3. 21. 15. 59	4. 57. 2	4. 50. 28
22	Tu.	3. 27. 35. 28	4. 3. 57. 45	4. 40. 16	4. 26. 28
23	W.	4. 10. 22. 50	4. 16. 50. 50	4. 9. 16	3. 48. 39
24	Th.	4. 23. 21. 55	4. 29. 56. 6	3. 24. 53	2. 58. 11
25	F.	5. 6. 33. 36	5. 13. 14. 35	2. 28. 51	1. 57. 12
26	Sa.	5. 19. 59. 7	5. 26. 47. 28	1. 23. 35	0. 48. 28 S
27	Su.	6. 3. 39. 46	6. 10. 36. 9	0. 12. 18 S	0. 24. 24 N
28	M.	6. 17. 36. 37	6. 24. 41. 16	1. 1. 7 N	1. 37. 13
29	Tu.	7. 1. 49. 56	7. 9. 2. 28	2. 12. 8	2. 45. 15
30	W.	7. 16. 18. 34	7. 23. 37. 39	3. 15. 54	3. 43. 31

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J U N E 1773.

Days of the Month.	Days of the Week.	D's Age.	D's Passage over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's Declination at Noon.	D's Declination at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	Tu.	12	9. 4	200. 40	207. 49	7. 27 S	9. 32 S
2	W.	13	10. 1	215. 7	222. 35	11. 30	13. 17
3	Th.	14	11. 1	230. 11	237. 54	14. 51	16. 10
4	F.	15	12. 2	245. 43	253. 35	17. 13	17. 57
5	Sa.	16	13. 3	261. 28	269. 18	18. 23	18. 28
6	Su.	17	14. 2	277. 3	284. 40	18. 15	17. 44
7	M.	18	14. 59	292. 8	299. 24	16. 56	15. 53
8	Tu.	19	15. 52	306. 29	313. 21	14. 37	13. 10
9	W.	20	16. 41	320. 1	326. 30	11. 34	9. 51
10	Th.	21	17. 28	332. 48	338. 57	8. 3	6. 10
11	F.	22	18. 13	344. 59	350. 54	4. 15	2. 19 S
12	Sa.	23	18. 56	356. 44	2. 30	0. 23 S	1. 32 N
13	Su.	24	19. 39	8. 13	13. 56	3. 26 N	5. 17
14	M.	25	20. 22	19. 39	25. 23	7. 4	8. 46
15	Tu.	26	21. 6	31. 9	36. 59	10. 23	11. 53
16	W.	27	21. 51	42. 52	48. 49	13. 17	14. 32
17	Th.	28	22. 37	54. 52	60. 59	15. 39	16. 36
18	F.	29	23. 25	67. 11	73. 28	17. 22	17. 57
19	Sa.	1	♂	79. 49	86. 14	18. 20	18. 30
20	Su.	2	0. 14	92. 41	99. 11	18. 27	18. 11
21	M.	3	1. 4	105. 41	112. 12	17. 42	17. 0
22	Tu.	4	1. 53	118. 43	125. 12	16. 5	14. 58
23	W.	5	2. 43	131. 41	138. 8	13. 39	12. 10
24	Th.	6	3. 31	144. 34	150. 59	10. 31	8. 44
25	F.	7	4. 20	157. 23	163. 49	6. 49	4. 47
26	Sa.	8	5. 9	170. 15	176. 44	2. 41 N	0. 32 N
27	Su.	9	5. 59	183. 17	189. 54	1. 39 S	3. 50 S
28	M.	10	6. 51	196. 38	203. 28	5. 58	8. 4
29	Tu.	11	7. 44	210. 26	217. 33	10. 3	11. 55
30	W.	12	8. 41	224. 48	232. 12	13. 36	15. 5

J U N E 1773.						[67]	
Days of the Month.	Days of the Week.	Semidr. ☽ at Noon.	Semidr. ☽ at Mid-night.	Hor. Par. ☽ at Noon.	Hor. Par. ☽ at Midnight.	Proport. Longitude at Noon.	Proport. Longitude at Mid-night.
		M. S.	M. S.	M. S.	M. S.		
1	Tu.	16. 28	16. 32	60. 24	60. 42	4742	4721
2	W.	16. 36	16. 39	60. 55	61. 5	4705	4693
3	Th.	16. 40	16. 41	61. 11	61. 13	4686	4684
4	F.	16. 40	16. 38	61. 10	61. 3	4687	4696
5	Sa.	16. 35	16. 30	60. 51	60. 35	4710	4729
6	Su.	16. 25	16. 19	60. 15	59. 51	4753	4782
7	M.	16. 12	16. 5	59. 27	59. 0	4811	4844
8	Tu.	15. 57	15. 49	58. 31	58. 3	4880	4915
9	W.	15. 41	15. 34	57. 34	57. 7	4951	4985
10	Th.	15. 26	15. 20	56. 40	56. 15	5019	5051
11	F.	15. 13	15. 8	55. 52	55. 32	5081	5107
12	Sa.	15. 3	14. 58	55. 13	54. 57	5132	5153
13	Su.	14. 55	14. 52	54. 43	54. 32	5171	5186
14	M.	14. 49	14. 48	54. 23	54. 17	5198	5206
15	Tu.	14. 46	14. 46	54. 13	54. 11	5211	5214
16	W.	14. 46	14. 46	54. 10	54. 13	5215	5212
17	Th.	14. 47	14. 49	54. 16	54. 21	5207	5201
18	F.	14. 50	14. 53	54. 28	54. 36	5191	5181
19	Sa.	14. 55	14. 58	54. 45	54. 55	5169	5155
20	Su.	15. 1	15. 4	55. 7	55. 19	5140	5124
21	M.	15. 8	15. 11	55. 31	55. 45	5108	5090
22	Tu.	15. 15	15. 19	55. 59	56. 13	5072	5054
23	W.	15. 23	15. 28	56. 29	56. 45	5033	5013
24	Th.	15. 31	15. 37	57. 1	57. 18	4992	4971
25	F.	15. 41	15. 47	57. 35	57. 53	4950	4927
26	Sa.	15. 51	15. 56	58. 10	58. 28	4906	4883
27	Su.	16. 1	16. 6	58. 46	59. 4	4861	4839
28	M.	16. 10	16. 15	59. 20	59. 37	4820	4799
29	Tu.	16. 18	16. 22	59. 51	60. 4	4782	4766
30	W.	16. 25	16. 27	60. 15	60. 23	4753	4743

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J U N E 1773.

Distances of γ 's Center from Stars, and from \odot east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Antares.	45. 3. 2	43. 15. 35	41. 28. 2	39. 40. 24
2		30. 43. 14	28. 56. 31	27. 10. 18	25. 24. 45
3	α Aquilæ.	68. 13. 28	66. 32. 14	64. 51. 19	63. 10. 46
4		54. 55. 9	53. 17. 58	51. 41. 39	50. 6. 13
5	β Capri- corni.	38. 52. 51	37. 0. 56	35. 9. 16	33. 17. 51
6		24. 5. 10	22. 15. 36	20. 26. 23	18. 37. 33
7	α Pegasi.	59. 17. 28	57. 38. 5	55. 59. 23	54. 21. 24
8		46. 23. 4	44. 50. 0	43. 17. 54	41. 46. 48
9	α Arietis.	75. 16. 24	73. 39. 17	72. 2. 37	70. 26. 24
10		62. 31. 59	60. 58. 26	59. 25. 20	57. 52. 40
11		50. 15. 59	48. 46. 1	47. 16. 31	45. 47. 39
9	The Sun.	119. 57. 16	118. 25. 20	116. 53. 48	115. 22. 39
10		107. 52. 47	106. 23. 57	104. 55. 28	103. 27. 20
11		96. 11. 42	94. 45. 32	93. 19. 40	91. 54. 5
12		84. 50. 12	83. 26. 10	82. 2. 22	80. 38. 46
13		73. 43. 43	72. 21. 16	70. 58. 57	69. 36. 48
14		62. 47. 50	61. 26. 21	60. 4. 57	58. 43. 39
15		51. 58. 7	50. 37. 10	49. 16. 14	47. 55. 20
16		41. 10. 59	39. 50. 9		
22	Regulus.	29. 30. 28	27. 56. 15	26. 21. 57	24. 47. 34
23		16. 55. 34			
23	Spica III	70. 12. 51	68. 36. 27	66. 59. 50	65. 23. 2
24		57. 15. 50	55. 37. 47	53. 59. 31	52. 21. 3
25		44. 5. 27	42. 25. 40	40. 45. 41	39. 5. 39
26		30. 41. 31	29. 0. 8	27. 18. 35	25. 36. 52
27		17. 6. 59			
27	Antares.	63. 1. 5	61. 18. 36	59. 35. 54	57. 53. 1
28		49. 16. 2	47. 32. 12	45. 48. 15	44. 4. 12
29		35. 23. 42	33. 39. 47	31. 56. 5	30. 12. 39
30	α Aquilæ.	72. 57. 58	71. 19. 29	69. 41. 6	68. 2. 50
J. I.		59. 54. 52			

Distances of γ 's Center from Stars, and from \odot east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1 2	Antares.	37. 52. 46 23. 40. 0	36. 5. 9	34. 17. 38	32. 30. 18
2 3 4	α Aquilæ.	75. 0. 0 61. 30. 34 48. 31. 42	73. 18. 14 59. 50. 48	71. 36. 31 58. 11. 38	69. 54. 54 56. 33. 5
4 5 6	β Capri- corni.	46. 22. 33 31. 26. 42 16. 49. 5	44. 29. 51 29. 35. 51	42. 37. 19 27. 45. 18	40. 44. 59 25. 55. 5
6 7 8	α Pegasi.	66. 0. 54 52. 44. 7 40. 16. 49	64. 19. 13 51. 7. 38 38. 48. 2	62. 38. 4 49. 31. 56 37. 20. 34	60. 57. 28 47. 57. 4 35. 54. 27
9 10 11	α Arietis.	68. 50. 37 56. 20. 27 44. 18. 58	67. 15. 17 54. 48. 39	65. 40. 24 53. 17. 18	64. 5. 58 51. 46. 25
9 10 11 12 13 14 15	The Sun.	113. 51. 55 101. 59. 33 90. 28. 48 79. 15. 24 68. 14. 47 57. 22. 25 46. 34. 27	112. 21. 34 100. 32. 6 89. 3. 46 77. 52. 12 66. 52. 53 56. 1. 15 45. 13. 34	110. 51. 35 99. 4. 59 87. 38. 59 76. 29. 11 65. 31. 5 54. 40. 9 43. 52. 41	109. 22. 0 97. 38. 11 86. 14. 28 75. 6. 22 64. 9. 24 53. 19. 6 42. 31. 50
21 22	Regulus.	35. 46. 7 23. 13. 8	34. 12. 23 21. 38. 40	32. 38. 32 20. 4. 13	31. 4. 34 18. 29. 50
23 24 25 26	Spica α	63. 46. 0 50. 42. 21 37. 25. 6 23. 55. 2	62. 8. 46 49. 3. 27 35. 44. 30 22. 13. 4	60. 31. 20 47. 24. 20 34. 3. 42 20. 31. 3	58. 53. 41 45. 45. 0 32. 22. 42 18. 49. 0
27 28 29	Antares.	56. 9. 56 42. 20. 6 28. 29. 35	54. 26. 41 40. 35. 57	52. 43. 17 38. 51. 49	50. 59. 44 37. 7. 43
29 30	α Aquilæ.	79. 32. 10 66. 24. 45	77. 53. 39 64. 46. 52	76. 15. 5 63. 9. 14	74. 36. 31 61. 31. 53

Distances of γ 's Center from Stars, and from \odot west of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Regulus.	55. 11. 49	57. 1. 35	58. 51. 42	60. 42. 8
2		69. 58. 18			
3	Spica α	16. 34. 3	18. 24. 27	20. 15. 20	22. 6. 38
4		31. 27. 26	33. 20. 10	35. 13. 0	37. 5. 55
5		46. 30. 53	48. 23. 48	50. 16. 38	52. 9. 22
6		61. 30. 45	63. 22. 27	65. 13. 55	67. 5. 8
7	Antares.	31. 34. 1	33. 19. 0	35. 4. 4	36. 49. 6
8		45. 32. 19	47. 16. 20	49. 0. 4	50. 43. 31
9		59. 15. 46	60. 57. 8	62. 38. 8	64. 18. 44
10	Capri- corni.	17. 52. 10	19. 31. 42	21. 10. 50	22. 49. 33
11		30. 57. 8	32. 33. 30	34. 9. 30	35. 45. 10
12	α Aquilæ.	51. 27. 55	52. 47. 35	54. 7. 29	55. 27. 35
13		62. 10. 37	63. 31. 32	64. 52. 32	66. 13. 34
14		72. 59. 7	74. 20. 13	75. 41. 19	77. 2. 23
15	α Pegasi.	83. 47. 22	85. 8. 17	86. 29. 10	87. 50. 1
16		46. 45. 59	48. 6. 37	49. 27. 36	50. 48. 53
17		57. 39. 14	59. 2. 2	60. 25. 2	61. 48. 14
18		68. 47. 3	70. 11. 22	71. 35. 51	73. 0. 30
23	The Sun.		39. 52. 0	41. 20. 48	42. 49. 52
24		50. 18. 56	51. 49. 27	53. 20. 13	54. 51. 13
25		62. 29. 58	64. 2. 28	65. 35. 13	67. 8. 13
26		74. 56. 52	76. 31. 22	78. 6. 7	79. 41. 8
27		87. 40. 3	89. 16. 37	90. 53. 26	92. 30. 30
28		100. 39. 37	102. 18. 11	103. 57. 0	105. 36. 3
29		113. 54. 42	115. 35. 4	117. 15. 39	118. 56. 26
27	Regulus.	36. 59. 18	38. 42. 52	40. 26. 43	42. 10. 51
28		50. 55. 43	52. 41. 31	54. 27. 35	56. 13. 54
29		65. 9. 13			
29	Spica α	11. 55. 26	13. 39. 46	15. 25. 4	17. 11. 10
30		26. 9. 26	27. 58. 6	29. 47. 2	31. 36. 11
J. 1.		40. 44. 41			

Distances of γ 's Center from Stars, and from \odot west of her.

Days	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Regulus.	62. 32. 51	64. 23. 51	66. 15. 6	68. 6. 36
2	Spica κ	23. 58. 17	25. 50. 14	27. 42. 26	29. 34. 51
3		38. 58. 53	40. 51. 54	42. 44. 54	44. 37. 54
4		54. 1. 59	55. 54. 27	57. 46. 43	59. 38. 50
5		68. 56. 6			
5	Antares.	24. 37. 4	26. 20. 37	28. 4. 42	29. 49. 13
6		38. 34. 5	40. 18. 55	42. 3. 36	43. 48. 4
7		52. 26. 41	54. 9. 29	55. 51. 55	57. 34. 1
8		65. 58. 58	67. 38. 48	69. 18. 13	70. 57. 15
9	β Capri- corni.	24. 27. 51	26. 5. 45	27. 43. 16	29. 20. 24
10		37. 20. 27	38. 55. 24	40. 30. 2	42. 4. 21
11	α Aquilæ.	56. 47. 54	58. 8. 23	59. 29. 0	60. 49. 45
12		67. 34. 40	68. 55. 46	70. 16. 52	71. 37. 59
13		78. 23. 27	79. 44. 28	81. 5. 28	82. 26. 26
14		89. 10. 51			
14	α Pegasi.	41. 27. 33	42. 46. 34	44. 5. 59	45. 25. 47
15		52. 10. 27	53. 32. 16	54. 54. 21	56. 16. 40
16		63. 11. 39	64. 35. 13	65. 58. 59	67. 22. 55
17		74. 25. 19	75. 50. 17	77. 15. 23	78. 40. 37
23	The Sun.	44. 19. 11	45. 48. 45	47. 18. 34	48. 48. 38
24		56. 22. 29	57. 53. 59	59. 25. 44	60. 57. 44
25		68. 41. 27	70. 14. 55	71. 48. 39	73. 22. 38
26		81. 16. 24	82. 51. 55	84. 27. 42	86. 3. 45
27		94. 7. 50	95. 45. 25	97. 23. 14	99. 1. 18
28		107. 15. 21	108. 54. 51	110. 34. 35	112. 14. 32
29		120. 37. 26			
27	Regulus.	43. 55. 16	45. 39. 58	47. 24. 56	49. 10. 11
28		58. 0. 29	59. 47. 19	61. 34. 22	63. 21. 41
29	Spica κ	18. 57. 57	20. 45. 14	22. 32. 57	24. 21. 2
30		33. 25. 33	35. 15. 7	37. 4. 50	38. 54. 42

Configurations of the SATELLITES of JUPITER
at 2 o' th' Clock in the Morning.

1		.4	.3	2. 1.	⊙			
2			.4	.2	.3	⊙	.1	
3				3.	.4	⊙	.2 .3	
4						⊙	2. 1. .4	3.
5			2.	.1	⊙		3.	.4
6	2.0			3.	⊙	1.		.4
7			3.		.1	⊙	2.	.4
8	1●		.3	2.	⊙			4.
9				.2	.1	⊙	.1	4.
10				.1	⊙		.2 .3	4.
11					⊙	2♂ 1+	.3	
12	4●		2.	.1	⊙		3.	
13			4.		5. .2	⊙	1.	
14		4.	3.		.1	⊙	.3	
15	4.		.3		2.	⊙		1●
16	4.			.2 .3	⊙	.1		
17	4.			2.	⊙		.2 .3	
18		.4			⊙		2. .1	.3
19			.4	2. 1.	⊙		3.	
20	3●				.2 .3	⊙	1.	
21			3.		.1	⊙	.4 .2	
22	2●		.3			⊙	1.	.4
23	1.0			.2 .3	⊙			.4
24					1.	⊙	.2 .3	.4
25					⊙		.1 2.	.3 4.
26				2. 1.	⊙		3.	4.
27	3●			.2	⊙		.1	4.
28			3.	.1	⊙		4♂ 2	
29	2●		.3		4.	⊙	1.	
30			4. 2.		.3	.1	⊙	

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.
			D.H.M.
			Full Moon — 3. 19. 37
			Last Quarter — 11. 4. 43
			New Moon — 19. 5. 47
			First Quarter — 26. 9. 35
1	Th.		Other Phenomena,
2	F.	Visitation of B. V. Mary.	
3	Sa.		D.
4	Su.	4th Sunday after Trinity.	3. $\delta \chi$ Ω diff. Lat. 26'.
5	M.	[Tr. of S. Martin.	5. $\alpha \beta \gamma$ 2h. 22'.
6	Tu.	Camb. Commencement.	7. $\alpha \theta$ 5h. 42'.
7	W.		10. $\alpha \gamma$ 7h. 15'.
8	Th.		$\delta \sigma$ Ω diff. Lat. 52'.
9	F.	Camb. Term ends.	$\alpha \zeta \kappa$ 23h. 4'.
10	Sa.		14. $\alpha \gamma \delta$ 19h. 53'.
			α 1 ad δ 22h. 4'.
11	Su.	5th Sunday after Trinity.	α 2 ad δ 22h. 35'.
12	M.	Oxford Act.	15. $\alpha \delta$ 3h. 55'.
13	Tu.		21. $\alpha \theta$ Ω 1h. 44'.
14	W.		$\alpha \pi$ Ω 10h. 52'.
15	Th.	Swithin.	22. \odot enters Ω at 4h. 0'.
16	F.		23. $\alpha \tau$ Ω 2h. 28'.
17	Sa.	Oxford Term ends.	24. $\delta \beta \eta$ diff. Lat. 4'.
			25. $\alpha \theta \eta$ 1h. 6'.
18	Su.	6th Sunday after Trinity.	$\delta \alpha$ Ω diff. Lat. 51'.
19	M.		26. $\alpha \kappa \eta$ 4h. 58'.
20	Tu.	Margaret.	27. $\alpha \gamma$ 15h. 53'.
21	W.		$\alpha \eta$ 19h. 39'.
22	Th.	Queen of Denmark born.	$\alpha \theta$ 23h. 51'.
23	F.	[Magdalen.	28. $\eta \chi$ Ω diff. Lat. 30'.
24	Sa.		γ Stationary.
25	Su.	7th Sunday after Trinity.	
26	M.	St. Anne. [St. James.	
27	Tu.		
28	W.		
29	Th.		
30	F.		
31	Sa.		

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J U L Y 1773.

Days of the Month.	Days of the Week.	Sun's Longitude.	Sun's Right Asc. in Time.	Sun's Declin. North.	Equat. of Time. Add.	Diff.
		S. D. M. S.	H. M. S.	D. M. S.	M. S.	S.
1	Th.	3. 9. 48. 27	6. 42. 41. 4	23. 6. 12	3. 22. 0	11, 3
2	F.	3. 10. 45. 37	6. 46. 49. 2	23. 1. 47	3. 33. 3	10, 9
3	Sa.	3. 11. 42. 48	6. 50. 56. 7	22. 56. 58	3. 44. 2	10, 6
4	Su.	3. 12. 39. 58	6. 55. 4. 0	22. 51. 44	3. 54. 8	10, 4
5	M.	3. 13. 37. 8	6. 59. 10. 9	22. 46. 7	4. 5. 2	10, 0
6	Tu.	3. 14. 34. 19	7. 3. 17. 5	22. 40. 7	4. 15. 2	9, 6
7	W.	3. 15. 31. 30	7. 7. 23. 6	22. 33. 42	4. 24. 8	9, 2
8	Th.	3. 16. 28. 41	7. 11. 29. 5	22. 26. 55	4. 34. 0	9, 0
9	F.	3. 17. 25. 53	7. 15. 35. 0	22. 19. 44	4. 43. 0	8, 5
10	Sa.	3. 18. 23. 5	7. 19. 40. 1	22. 12. 10	4. 51. 5	8, 1
11	Su.	3. 19. 20. 18	7. 23. 44. 8	22. 4. 13	4. 59. 6	7, 7
12	M.	3. 20. 17. 32	7. 27. 49. 0	21. 55. 53	5. 7. 3	7, 2
13	Tu.	3. 21. 14. 46	7. 31. 52. 8	21. 47. 10	5. 14. 5	6, 8
14	W.	3. 22. 12. 2	7. 35. 56. 2	21. 38. 5	5. 21. 3	6, 4
15	Th.	3. 23. 9. 18	7. 39. 59. 0	21. 28. 38	5. 27. 7	5, 8
16	F.	3. 24. 6. 34	7. 44. 1. 6	21. 18. 49	5. 33. 5	5, 4
17	Sa.	3. 25. 3. 52	7. 48. 3. 6	21. 8. 38	5. 38. 9	4, 8
18	Su.	3. 26. 1. 10	7. 52. 4. 9	20. 58. 5	5. 43. 7	4, 3
19	M.	3. 26. 58. 28	7. 56. 5. 8	20. 47. 11	5. 48. 0	3, 8
20	Tu.	3. 27. 55. 48	8. 0. 6. 1	20. 35. 57	5. 51. 8	3, 2
21	W.	3. 28. 53. 8	8. 4. 5. 9	20. 24. 21	5. 55. 0	2, 7
22	Th.	3. 29. 50. 28	8. 8. 5. 1	20. 12. 25	5. 57. 7	2, 0
23	F.	4. 0. 47. 48	8. 12. 3. 7	20. 0. 8	5. 59. 7	1, 4
24	Sa.	4. 1. 45. 9	8. 16. 1. 7	19. 47. 32	6. 1. 1	0, 8
25	Su.	4. 2. 42. 31	8. 19. 59. 1	19. 34. 35	6. 1. 9	0, 3
26	M.	4. 3. 39. 53	8. 23. 55. 9	19. 21. 20	6. 2. 2	0, 4
27	Tu.	4. 4. 37. 15	8. 27. 52. 0	19. 7. 44	6. 1. 8	1, 0
28	W.	4. 5. 34. 38	8. 31. 47. 6	18. 53. 51	6. 0. 8	1, 6
29	Th.	4. 6. 32. 2	8. 35. 42. 5	18. 39. 38	5. 59. 2	2, 3
30	F.	4. 7. 29. 25	8. 39. 36. 8	18. 25. 8	5. 56. 9	2, 9
31	Sa.	4. 8. 26. 50	8. 43. 30. 5	18. 10. 19	5. 54. 0	3, 5

J U L Y 1773. [75]					
Days.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	15. 46, 9	1. 8, 6	2. 23, 0	0. 007228	6. 5. 48
7	15. 47, 0	1. 8, 4	2. 23, 0	0. 007179	6. 5. 29
13	15. 47, 2	1. 8, 0	2. 23, 1	0. 007078	6. 5. 10
19	15. 47, 6	1. 7, 6	2. 23, 2	0. 006894	6. 4. 51
25	15. 48, 2	1. 7, 1	2. 23, 4	0. 006618	6. 4. 32

Eclipses of the SATELLITES of J U P I T E R.

I. Satellite. Immerfions.		II. Satellite. Immerfions.		III. Satellite.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
2	5. 40. 55	2	2. 25. 22	3	15. 24. 48 I
4	0. 9. 1	5	15* 43. 23	3	18. 14. 1 E
5	18. 37. 8	9	5. 1. 40	10	19. 24. 35 I
7	13* 5. 16	12	18. 19. 52	10	22. 12. 29 E
9	7. 33. 29	16	7. 38. 14	17	23. 24. 40 I
11	2. 1. 38	19	20. 56. 50	18	2. 11. 18 E
12	20. 29. 47	23	10. 15. 26	25	3. 25. 21 I
14	14* 58. 0	26	23. 34. 11	25	6. 10. 36 E
16	9. 26. 13	30	12* 53. 8	IV. Satellite.	
18	3. 54. 32				
19	22. 22. 50			14	12* 55. 44 I
21	16. 51. 13			14	15. 48. 53 E
23	11* 19. 33			31	7. 14. 23 I
25	5. 47. 58			31	9. 57. 53 E
27	0. 16. 23				
28	18. 44. 53				
30	13* 13. 22				

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JULY 1773.

Days.	Heliocen- tric Lon- gitude.	Heliocen- tric Lati- tude.	Geocen- tric Lon- gitude.	Geocen- tric La- titude.	Declina- tion.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

MERCURY.

1	3. 20. 22	6. 19 N	3. 12. 18	1. 31 N	24. 24 N	0. 11
7	4. 23. 30	6. 56	3. 24. 51	1. 50	22. 59	0. 42
13	5. 21. 3	5. 43	4. 6. 25	1. 44	20. 22	1. 5
19	6. 13. 54	3. 42	4. 16. 53	1. 18	17. 2	1. 23
25	7. 3. 34	1. 29	4. 26. 15	0. 36	13. 20	1. 35

VENUS.

1	3. 27. 33	2. 19 N	3. 17. 8	0. 58 N	23. 20 N	0. 32
7	4. 7. 19	2. 42	3. 24. 31	1. 8	22. 22	0. 39
13	4. 17. 4	3. 0	4. 1. 53	1. 17	21. 0	0. 46
19	4. 26. 49	3. 14	4. 9. 16	1. 23	19. 17	0. 52
25	5. 6. 34	3. 21	4. 16. 38	1. 27	17. 15	0. 58

MARS.

1	6. 12. 46	1. 4 N	5. 9. 54	0. 56 N	8. 44 N	4. 5
7	6. 15. 31	1. 0	5. 13. 24	0. 51	7. 19	3. 53
13	6. 18. 18	0. 55	5. 16. 57	0. 46	5. 52	3. 41
19	6. 21. 6	0. 51	5. 20. 33	0. 41	4. 22	3. 30
25	6. 23. 55	0. 46	5. 24. 12	0. 37	2. 52	3. 20

JUPITER.

1	11. 26. 16	1. 17 S	0. 8. 6	1. 20 S	2. 0 N	17. 46
7	11. 26. 49	1. 17	0. 8. 34	1. 21	2. 9	17. 23
13	11. 27. 22	1. 18	0. 8. 55	1. 23	2. 16	17. 0
19	11. 27. 55	1. 18	0. 9. 10	1. 25	2. 20	16. 37
25	11. 28. 28	1. 18	0. 9. 18	1. 27	2. 22	16. 13

SATURN.

1	5. 14. 2	1. 59 N	5. 8. 40	1. 53 N	10. 5 N	4. 1
7	5. 14. 14	2. 0	5. 9. 13	1. 53	9. 52	3. 39
13	5. 14. 27	2. 0	5. 9. 46	1. 52	9. 39	3. 16
19	5. 14. 39	2. 0	5. 10. 22	1. 52	9. 25	2. 54
25	5. 14. 52	2. 1	5. 11. 0	1. 51	9. 10	2. 33

JULY 1773.

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Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midn.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	Th.	8. 0. 59. 13	8. 8. 22. 26	4. 7. 35 N	4. 27. 33 N
2	F.	8. 15. 46. 20	8. 23. 10. 5	4. 43. 4	4. 53. 48
3	Sa.	9. 0. 32. 31	9. 7. 52. 36	4. 59. 36	5. 0. 25
4	Su.	9. 15. 9. 23	9. 22. 21. 56	4. 56. 21	4. 47. 33
5	M.	9. 29. 29. 18	10. 6. 31. 3	4. 34. 21	4. 17. 7
6	Tu.	10. 13. 26. 36	10. 20. 15. 36	3. 56. 17	3. 32. 22
7	W.	10. 26. 57. 58	11. 3. 33. 52	3. 5. 49	2. 37. 12
8	Th.	11. 10. 3. 19	11. 16. 26. 45	2. 6. 53	1. 35. 27
9	F.	11. 22. 44. 36	11. 28. 57. 14	1. 3. 15 N	0. 30. 41 N
10	Sa.	0. 5. 5. 22	0. 11. 9. 34	0. 1. 50 S	0. 34. 1 S
11	Su.	0. 17. 10. 35	0. 23. 8. 58	1. 5. 33	1. 36. 6
12	M.	0. 29. 5. 26	1. 5. 0. 42	2. 5. 28	2. 33. 21
13	Tu.	1. 10. 55. 22	1. 16. 50. 7	2. 59. 33	3. 23. 47
14	W.	1. 22. 45. 27	1. 28. 42. 13	3. 45. 52	4. 5. 32
15	Th.	2. 4. 40. 13	2. 10. 40. 36	4. 22. 39	4. 36. 55
16	F.	2. 16. 43. 26	2. 22. 49. 7	4. 48. 10	4. 56. 13
17	Sa.	2. 28. 57. 48	3. 5. 9. 50	5. 0. 57	5. 2. 8
18	Su.	3. 11. 25. 10	3. 17. 43. 58	4. 59. 43	4. 53. 37
19	M.	3. 24. 6. 11	4. 0. 31. 48	4. 43. 50	4. 30. 21
20	Tu.	4. 7. 0. 43	4. 13. 32. 52	4. 13. 15	3. 52. 40
21	W.	4. 20. 8. 2	4. 26. 46. 12	3. 28. 47	3. 1. 54
22	Th.	5. 3. 27. 6	5. 10. 10. 42	2. 32. 17	2. 0. 17
23	F.	5. 16. 56. 58	5. 23. 45. 42	1. 26. 21	0. 50. 57 S
24	Sa.	6. 0. 36. 55	6. 7. 30. 29	0. 14. 33 S	0. 22. 18 N
25	Su.	6. 14. 26. 27	6. 21. 24. 47	0. 59. 3 N	1. 35. 10
26	M.	6. 28. 25. 20	7. 5. 28. 6	2. 10. 2	2. 43. 7
27	Tu.	7. 12. 33. 1	7. 19. 39. 49	3. 13. 50	3. 41. 42
28	W.	7. 26. 48. 21	8. 3. 58. 15	4. 6. 11	4. 26. 57
29	Th.	8. 11. 9. 10	8. 18. 20. 32	4. 43. 30	4. 55. 35
30	F.	8. 25. 31. 54	9. 2. 42. 38	5. 3. 1	5. 5. 39
31	Sa.	9. 9. 52. 0	9. 16. 59. 21	5. 3. 31	4. 56. 39

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J U L Y 1773.

Days of the Month.	Days of the Week.	D's Age.	D's Passage over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's Declination at Noon.	D's Declination at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	Th.	13	9. 39	239. 44	247. 21	16. 20 S	17. 20 S
2	F.	14	10. 39	255. 4	262. 49	18. 1	18. 24
3	Sa.	15	11. 39	270. 34	278. 16	18. 28	18. 14
4	Su.	16	12. 37	285. 52	293. 21	17. 42	16. 53
5	M.	17	13. 33	300. 40	307. 49	15. 48	14. 31
6	Tu.	18	14. 25	314. 46	321. 32	13. 2	11. 23
7	W.	19	15. 15	328. 7	334. 32	9. 37	7. 46
8	Th.	20	16. 1	340. 47	346. 54	5. 51	3. 53 S
9	F.	21	16. 46	352. 55	358. 50	1. 55 S	0. 3 N
10	Sa.	22	17. 30	4. 41	10. 29	2. 0 N	3. 54
11	Su.	23	18. 13	16. 15	22. 1	5. 45	7. 31
12	M.	24	18. 57	27. 47	33. 36	9. 12	10. 48
13	Tu.	25	19. 42	39. 27	45. 22	12. 17	13. 38
14	W.	26	20. 27	51. 20	57. 23	14. 50	15. 54
15	Th.	27	21. 15	63. 32	69. 46	16. 48	17. 30
16	F.	28	22. 4	76. 4	82. 28	18. 1	18. 21
17	Sa.	29	22. 53	88. 55	95. 25	18. 27	18. 20
18	Su.	30	23. 44	101. 58	108. 33	18. 0	17. 27
19	M.	1	0	115. 8	121. 44	16. 40	15. 40
20	Tu.	2	0. 34	128. 19	134. 53	14. 27	13. 4
21	W.	3	1. 24	141. 25	147. 56	11. 29	9. 46
22	Th.	4	2. 14	154. 27	160. 56	7. 53	5. 54
23	F.	5	3. 4	167. 26	173. 57	3. 50 N	1. 43 N
24	Sa.	6	3. 54	180. 28	187. 3	0. 28 S	2. 38 S
25	Su.	7	4. 45	193. 40	200. 23	4. 47	6. 53
26	M.	8	5. 37	207. 11	214. 5	8. 54	10. 47
27	Tu.	9	6. 31	221. 6	228. 14	12. 33	14. 7
28	W.	10	7. 27	235. 29	242. 50	15. 28	16. 36
29	Th.	11	8. 25	250. 16	257. 46	17. 28	18. 3
30	F.	12	9. 24	265. 19	272. 50	18. 21	18. 21
31	Sa.	13	10. 22	280. 21	287. 46	18. 3	17. 30

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Days of the Month.	Days of the Week.	Semid ^r . at Noon.	Semid ^r . at Mid-night.	Hor. Par. at Noon.	Hor. Par. at Midnight.	Propor. Lo. at Noon.	Propor. Lo. at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	Th.	16. 29	16. 29	60. 30	60. 31	4735	4734
2	F.	16. 29	16. 28	60. 30	60. 25	4735	4741
3	Sa.	16. 26	16. 22	60. 18	60. 5	4750	4765
4	Su.	16. 18	16. 13	59. 51	59. 32	4782	4805
5	M.	16. 8	16. 1	59. 11	58. 48	4831	4859
6	Tu.	15. 55	15. 48	58. 24	57. 59	4889	4919
7	W.	15. 41	15. 34	57. 33	57. 8	4952	4984
8	Th.	15. 27	15. 21	56. 43	56. 19	5015	5046
9	F.	15. 15	15. 9	55. 57	55. 36	5075	5102
10	Sa.	15. 4	15. 0	55. 18	55. 2	5125	5146
11	Su.	14. 56	14. 53	54. 49	54. 38	5163	5178
12	M.	14. 51	14. 49	54. 30	54. 24	5189	5197
13	Tu.	14. 48	14. 48	54. 21	54. 20	5201	5202
14	W.	14. 49	14. 50	54. 21	54. 25	5201	5195
15	Th.	14. 51	14. 53	54. 31	54. 39	5187	5177
16	F.	14. 56	14. 59	54. 49	55. 0	5163	5149
17	Sa.	15. 2	15. 6	55. 12	55. 26	5133	5115
18	Su.	15. 10	15. 14	55. 41	55. 56	5095	5076
19	M.	15. 19	15. 23	56. 12	56. 27	5055	5036
20	Tu.	15. 27	15. 32	56. 44	56. 59	5014	4995
21	W.	15. 36	15. 40	57. 15	57. 29	4975	4957
22	Th.	15. 44	15. 48	57. 44	57. 57	4938	4922
23	F.	15. 51	15. 55	58. 11	58. 23	4905	4890
24	Sa.	15. 58	16. 1	58. 35	58. 46	4875	4861
25	Su.	16. 4	16. 6	58. 57	59. 6	4848	4837
26	M.	16. 9	16. 11	59. 15	59. 23	4826	4816
27	Tu.	16. 13	16. 14	59. 29	59. 35	4809	4801
28	W.	16. 15	16. 16	59. 39	59. 42	4797	4793
29	Th.	16. 16	16. 16	59. 42	59. 42	4793	4793
30	F.	16. 15	16. 14	59. 38	59. 33	4798	4804
31	Sa.	16. 11	16. 9	59. 25	59. 15	4813	4826

Distances of γ 's Center from \odot , and from Stars east of her.

Days	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	β Capri- corni.	59. 42. 48	57. 52. 16	56. 1. 41	54. 11. 3
2		44. 57. 38	43. 6. 58	41. 16. 21	39. 25. 48
3		30. 14. 30	28. 24. 38	26. 34. 56	24. 45. 25
4	α Pegasi.	64. 58. 13	63. 16. 40	61. 35. 35	59. 55. 0
5		51. 40. 34	50. 3. 38	48. 27. 27	46. 52. 7
6		39. 9. 46			
7	α Arietis.	80. 31. 12	78. 50. 53	77. 10. 58	75. 31. 29
8		67. 20. 28	65. 43. 33	64. 7. 5	62. 31. 5
9		54. 38. 7	53. 4. 57	51. 32. 16	50. 0. 6
10	Aldeba- ran.	42. 27. 5	40. 58. 11	39. 29. 55	38. 2. 17
11		61. 40. 15	60. 8. 32	58. 37. 2	57. 5. 46
12	The Sun.	49. 32. 27	48. 2. 20	46. 32. 23	45. 2. 36
9		114. 41. 0	113. 14. 38	111. 48. 33	110. 22. 45
10		103. 17. 44	101. 53. 30	100. 29. 29	99. 5. 41
11		92. 9. 43	90. 47. 4	89. 24. 34	88. 2. 14
12		81. 12. 27	79. 50. 48	78. 29. 14	77. 7. 44
13		70. 21. 5	68. 59. 51	67. 38. 36	66. 17. 22
14		59. 30. 57	58. 9. 33	56. 48. 6	55. 26. 35
15		48. 37. 57	47. 15. 56	45. 53. 49	44. 31. 36
21	Spica π	60. 29. 16	58. 50. 12	57. 10. 57	55. 31. 30
22		47. 11. 39	45. 31. 9	43. 50. 30	42. 9. 41
23		33. 43. 23			
23	Antares.	79. 34. 38	77. 53. 41	76. 12. 35	74. 31. 20
24		66. 3. 3	64. 21. 2	62. 38. 57	60. 56. 45
25		52. 24. 35	50. 41. 59	48. 59. 22	47. 16. 45
26		38. 44. 18	37. 2. 9	35. 20. 10	33. 38. 24
27	α Aquilæ.	76. 14. 58	74. 38. 47	73. 2. 42	71. 26. 45
28		63. 29. 36	61. 54. 53	60. 20. 36	58. 46. 41
29		51. 5. 0			
29	β Capri- corni.	49. 33. 44	47. 46. 14	45. 58. 44	44. 11. 14
30		35. 13. 56	33. 26. 35	31. 39. 17	29. 52. 3
31		20. 57. 12			
31 A. I.	α Pegasi.	69. 55. 7	68. 14. 38	66. 34. 26	64. 54. 31
		56. 40. 17			

Distances of β 's Center from \odot , and from Stars east or west.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	β Capri- corni.	52. 20. 23	50. 29. 42	48. 39. 0	46. 48. 19
2		37. 35. 19	35. 44. 56	33. 54. 40	32. 4. 31
3		22. 56. 5			
3	α Pegasi.	71. 48. 32	70. 5. 22	68. 22. 33	66. 40. 11
4		58. 14. 53	56. 35. 22	54. 56. 29	53. 18. 13
5		45. 17. 40	43. 44. 9	42. 11. 38	40. 40. 9
6	α Arietis.	73. 52. 25	72. 13. 47	70. 35. 35	68. 57. 48
7		60. 55. 32	59. 20. 28	57. 45. 52	56. 11. 45
8		48. 28. 26	46. 57. 16	45. 26. 38	43. 56. 34
9	Aldeba- ran.	36. 35. 18			
9		67. 49. 46	65. 16. 59	64. 44. 28	63. 12. 13
10		55. 34. 42	54. 3. 52	52. 33. 12	51. 2. 44
11		43. 32. 58			
8	The Sun.	120. 29. 45	119. 2. 3	117. 34. 42	116. 7. 41
9		108. 57. 14	107. 31. 59	106. 6. 59	104. 42. 14
10		97. 42. 7	96. 18. 44	94. 55. 33	93. 32. 32
11		86. 40. 2	85. 17. 58	83. 56. 1	82. 34. 11
12		75. 46. 19	74. 24. 57	73. 3. 38	71. 42. 21
13		64. 56. 7	63. 34. 52	62. 13. 36	60. 52. 18
14		54. 5. 0	52. 43. 22	51. 21. 30	49. 59. 51
15		43. 9. 17	41. 46. 51	40. 24. 18	39. 1. 30
20	Spica κ .	67. 3. 24	65. 25. 11	63. 46. 46	62. 2. 5
21		53. 51. 53	52. 12. 5	50. 32. 7	48. 51. 58
22		40. 28. 43	38. 47. 36	37. 6. 20	35. 24. 56
23	Antares.	72. 49. 56	71. 8. 24	69. 26. 45	67. 44. 57
24		59. 14. 27	57. 32. 4	55. 49. 38	54. 7. 8
25		45. 34. 9	43. 51. 34	42. 9. 2	40. 26. 36
26		31. 56. 53			
26	α Aquilæ.	82. 40. 6	81. 3. 49	79. 27. 31	77. 54. 13
27		69. 50. 53	68. 15. 13	66. 39. 46	65. 4. 38
28		57. 13. 14	55. 40. 17	54. 7. 54	52. 55. 7
29	β Capri- corni.	42. 23. 44	40. 36. 14	38. 48. 46	37. 1. 20
30		28. 4. 54	26. 17. 50	24. 30. 51	22. 43. 58
31		63. 14. 54	61. 35. 38	59. 56. 46	58. 16. 19

Distances of γ 's Center from \odot , and from Stars west of her.

Dys.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Spica π	40. 44. 40	42. 34. 47	44. 24. 59	46. 15. 15
2		55. 27. 6	57. 17. 30	59. 7. 51	60. 58. 9
3		70. 8. 19			
3	Antares.	25. 44. 13	27. 27. 24	29. 11. 4	30. 55. 8
4		39. 39. 15	41. 24. 18	43. 9. 18	44. 54. 13
5		53. 36. 17	55. 20. 4	57. 3. 35	58. 46. 51
6		67. 18. 31	68. 59. 51	70. 40. 50	72. 21. 28
7	Capri- corni.	80. 39. 8			
7		26. 3. 32	27. 43. 14	29. 22. 32	31. 1. 27
8	α Aquilæ.	39. 10. 16	40. 46. 56	42. 23. 14	43. 59. 11
9		58. 42. 5	60. 4. 15	61. 26. 28	62. 48. 45
10		69. 40. 25	71. 2. 40	72. 24. 52	73. 47. 1
11	Fomal- haut.	80. 36. 46	81. 58. 28	83. 20. 5	84. 41. 37
12		59. 54. 17	61. 13. 12	62. 32. 18	63. 51. 36
13	β Pegasi.	70. 30. 32	71. 50. 46	73. 11. 8	74. 31. 37
14		65. 33. 1	66. 56. 42	68. 20. 33	69. 44. 35
15		76. 47. 12	78. 12. 13	79. 37. 25	81. 2. 47
16	α Arietis.	44. 34. 43	46. 1. 17	47. 28. 13	48. 55. 31
17		56. 16. 54	57. 46. 7	59. 15. 38	60. 45. 27
18		68. 18. 45			
23	The Sun.	46. 10. 13	47. 44. 44	49. 19. 28	50. 54. 23
24		58. 51. 46	60. 27. 45	62. 3. 54	63. 40. 12
25		71. 44. 6	73. 21. 20	74. 58. 43	76. 36. 13
26		84. 45. 40	85. 23. 56	86. 2. 19	89. 40. 50
27		97. 55. 0	99. 34. 8	101. 13. 21	102. 52. 39
28		111. 10. 38	112. 50. 1	114. 29. 47	116. 9. 35
27	Spica π	22. 29. 2	24. 14. 17	25. 59. 49	27. 45. 37
28		36. 37. 4	38. 23. 44	40. 10. 29	41. 57. 20
29		50. 52. 35	52. 39. 43	54. 26. 56	56. 14. 9
30		65. 10. 3	66. 57. 10	68. 44. 13	70. 31. 13
31	Antares.	34. 34. 46	36. 17. 20	38. 0. 7	39. 43. 5
A. 1		48. 18. 36			

Distances of J's Center from ☉, and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Spica 𐌸	48. 5. 34	49. 55. 55	51. 46. 18	53. 36. 42
2		62. 48. 24	64. 38. 33	66. 28. 36	68. 18. 31
3	Antares.	32. 39. 33	34. 24. 14	35. 9. 7	37. 54. 9
4		46. 39. 1	48. 23. 37	50. 8. 2	51. 52. 16
5		60. 29. 49	62. 12. 28	63. 54. 49	65. 36. 50
6		74. 1. 44	75. 41. 39	77. 21. 11	79. 0. 21
7	β Capri- corni.	32. 39. 58	34. 18. 6	35. 55. 52	37. 33. 15
8		45. 34. 47			
8	α Aquilæ.	53. 14. 41	54. 36. 19	55. 58. 6	57. 20. 1
9		64. 11. 5	65. 33. 26	66. 55. 46	68. 18. 6
10		75. 9. 6	76. 31. 8	77. 53. 5	79. 14. 58
11		86. 3. 3			
11	Fomal- haut.	54. 40. 59	55. 58. 57	57. 17. 9	58. 35. 36
12		65. 11. 5	66. 30. 43	67. 50. 30	69. 10. 27
13		75. 52. 14			
13	α Pegasi.	60. 0. 5	61. 23. 3	62. 46. 11	64. 9. 31
14		71. 8. 47	72. 33. 6	73. 57. 39	75. 22. 21
15		82. 28. 20			
15	α Arietis.	38. 52. 32	40. 17. 27	41. 42. 47	43. 8. 33
16		50. 23. 9	51. 51. 6	53. 19. 23	54. 47. 59
17		62. 15. 35	63. 45. 58	65. 16. 38	66. 47. 32
22	The Sun.	39. 54. 6	41. 27. 49	43. 1. 45	44. 35. 54
23		52. 29. 29	54. 4. 47	55. 40. 16	57. 15. 56
24		65. 16. 40	66. 53. 18	68. 30. 5	70. 7. 1
25		78. 13. 52	79. 51. 38	81. 29. 31	83. 7. 32
26		91. 19. 27	92. 58. 11	94. 37. 1	96. 15. 58
27		104. 32. 1	106. 11. 29	107. 51. 2	109. 30. 38
28		117. 49. 26	119. 29. 19	121. 9. 13	
26	Spica 𐌸	15. 31. 37	17. 15. 22	18. 59. 32	20. 44. 6
27		29. 31. 37	31. 17. 46	33. 4. 3	34. 50. 30
28		43. 44. 16	45. 31. 17	47. 18. 22	49. 5. 28
29		58. 1. 20	59. 48. 32	61. 35. 44	63. 22. 54
30		72. 18. 9			
30	Antares.	27. 47. 44	29. 28. 54	31. 10. 30	32. 52. 28
31		41. 26. 9	43. 9. 15	44. 52. 24	46. 35. 29

Configurations of the SATELLITES of JUPITER at
Half an Hour past 2 o' th' Clock in the Morning.

1			⊙	.2.3	10
2	4.		⊙	.1 2. 3	
3	4	102	⊙		3.
4	4	.2	⊙	3. .1	
5	4	3. .1	⊙		.2
6		3. 4	⊙	2.1.	
7		.3 2.	.1.4	⊙	
8	10 2.0 3.0		⊙		.4
9			⊙	.1 2. 3 4	
10		102	⊙		3. 4
11		.2	⊙	.1 3.	4
12		3.1.	⊙	.2	4.
13		3.	⊙	102	4.
14		.3 2. .1	⊙		.4
15	3.0 4.0		.2	⊙ 1.	
16	1.0	4.	⊙		2. 3
17		4	102	⊙	3.
18	4	.2	⊙	.1 3.	
19	4		103	⊙	.2
20	4	3.	⊙	102	
21	4	.3 2. .1	⊙		
22		4	203	⊙	1.
23		4	.1	⊙	203
24	10 2 4.0		⊙		.3
25		.2	⊙	.1 3. 4	
26		1.3.	⊙	.2	4
27		3.	⊙	.1 2.	4
28		.3 2. .1	⊙		4
29			203	⊙	4.
30			.1	⊙	.2 .2 4.
31	10 20		⊙		4. 3

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.	
			D. H. M.	
			Full Moon —	2. 4. 21
			Last Quarter —	9. 22. 6
			New Moon —	17. 17. 10
			First Quarter —	24. 14. 28
			Full Moon —	31. 15. 41
			D. Other Phenomena.	
			1. ☾ ☿ 11 ^h . 38 ^l .	
			2. ♀ α♈ diff. Lat. 61 ^l .	
			3. ☾ ☿ 15 ^h . 0 ^l .	
			6. ♂ ♃ diff. Lat. 56 ^l .	
			♂ ♃ ♀ diff. Lat. 3 ^o . 21 ^l .	
			☾ ♃ 16 ^h . 32 ^l .	
			7. ☾ ☿ 7 ^h . 17 ^l .	
			11. ☾ ☿ 3 ^h . 48 ^l .	
			☾ ♃ 5 ^h . 56 ^l .	
			☾ ♃ 6 ^h . 28 ^l .	
			☾ ♃ Im. 10 ^h . 39 ^l . *	
			1½ ^h S. of ♀'s c. Em.	
			11 ^h . 31 ^l . * 1 ^l S.	
			14. ♀ ☿ diff. Lat. 4 ^l .	
			15. ♂ ♃ diff. Lat. 29 ^l .	
			17. ♀ ☿ diff. Lat. 19 ^l .	
			19. ☾ ♃ 9 ^h . 14 ^l .	
			☾ ♃ 18 ^h . 53 ^l .	
			20. ☾ ♃ Im. 22 ^h . 20 ^l . ♂	
			1½ ^h N. Em. 23 ^h . 25 ^l .	
			♂ 1 ^l N. of ♀'s cent.	
			♂ ♃ diff. Lat. 5 ^o . 17 ^l .	
			☾ ♃ 6 ^h . 57 ^l .	
			♀ Stationary.	
			22. ☉ enters ♏ at 10 ^h . 17 ^l .	
			☾ ♃ 10 ^h . 29 ^l .	
			23. ☾ ♃ 21 ^h . 21 ^l .	
			24. ☾ ♃ 1 ^h . 8 ^l .	
			☾ ♃ 5 ^h . 22 ^l .	
			♀ ♃ diff. Lat. 29 ^l .	
			28. ☾ ♃ 19 ^h . 18 ^l .	
			30. ♀ ♃ diff. Lat. 21 ^l .	
			☾ ♃ 23 ^h . 28 ^l .	

Days of the Month.	Days of the Week.	Sun's Longitude.			Sun's Right Asc. in Time.			Sun's Declin. North.			Equat. of Time Add.		Diff.
		S.	D.	M. S.	H.	M.	S.	D.	M.	S.	M.	S.	
1	Su.	4	9.	24. 15	8.	47.	23, 5	17.	55.	12	5.	50, 5	4, 1
2	M.	4	10.	21. 42	8.	51.	15, 9	17.	39.	48	5.	46, 4	4, 7
3	Tu.	4	11.	19. 9	8.	55.	7, 8	17.	24.	7	5.	41, 7	5, 3
4	W.	4	12.	16. 37	8.	58.	59, 0	17.	8.	8	5.	36, 4	5, 8
5	Th.	4	13.	14. 6	9.	2.	49, 7	16.	51.	54	5.	30, 6	6, 5
6	F.	4	14.	11. 37	9.	6.	39, 8	16.	35.	22	5.	24, 1	7, 0
7	Sa.	4	15.	9. 9	9.	10.	29, 3	16.	18.	34	5.	17, 1	7, 6
8	Su.	4	16.	6. 42	9.	14.	18, 2	16.	1.	31	5.	9, 5	8, 1
9	M.	4	17.	4. 17	9.	18.	6, 6	15.	44.	12	5.	1, 4	8, 8
10	Tu.	4	18.	1. 54	9.	21.	54, 4	15.	26.	37	4.	52, 6	9, 2
11	W.	4	18.	59. 32	9.	25.	41, 7	15.	8.	48	4.	43, 4	9, 8
12	Th.	4	19.	57. 11	9.	29.	28, 4	14.	50.	44	4.	33, 6	10, 3
13	F.	4	20.	54. 52	9.	33.	14, 6	14.	32.	25	3.	23, 3	10, 9
14	Sa.	4	21.	52. 35	9.	37.	0, 4	14.	13.	53	4.	12, 4	11, 3
15	Su.	4	22.	50. 20	9.	40.	45, 5	13.	55.	7	4.	1, 1	11, 9
16	M.	4	23.	48. 5	9.	44.	30, 2	13.	36.	7	3.	49, 2	12, 4
17	Tu.	4	24.	45. 53	9.	48.	14, 3	13.	16.	55	3.	36, 8	12, 8
18	W.	4	25.	43. 42	9.	51.	58, 0	12.	57.	29	3.	24, 0	13, 4
19	Th.	4	26.	41. 32	9.	55.	41, 2	12.	37.	52	3.	10, 6	13, 8
20	F.	4	27.	39. 23	9.	59.	23, 8	12.	18.	22	2.	56, 8	14, 4
21	Sa.	4	28.	37. 16	10.	3.	6, 0	11.	58.	1	2.	42, 4	14, 7
22	Su.	4	29.	35. 10	10.	6.	47, 8	11.	37.	48	2.	27, 7	15, 3
23	M.	5.	0.	33. 5	10.	10.	29, 0	11.	17.	24	2.	12, 4	15, 7
24	Tu.	5.	1.	31. 2	10.	14.	9, 8	10.	56.	50	1.	56, 7	16, 1
25	W.	5.	2.	29. 0	10.	17.	50, 2	10.	36.	5	1.	40, 6	16, 7
26	Th.	5.	3.	26. 59	10.	21.	30, 0	10.	15.	10	1.	23, 9	16, 9
27	F.	5.	4.	24. 59	10.	25.	9, 6	9.	54.	6	1.	7, 0	17, 3
28	Sa.	5.	5.	23. 0	10.	28.	48, 8	9.	32.	52	0.	49, 7	17, 7
29	Su.	5.	6.	21. 3	10.	32.	27, 6	9.	11.	30	0.	32, 0	18, 1
30	M.	5.	7.	19. 7	10.	36.	6, 1	8.	49.	58	0.	13, 9	18, 4
31	Tu.	5.	8.	17. 13	10.	39.	44, 2	8.	28.	18	Sub.	4, 5	18, 8

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Days of the Month.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	15. 49, 0	1. 6, 5	2. 23, 6	0. 0006203	6. 4. 10
7	15. 49, 9	1. 6, 0	2. 23, 9	0. 0005802	6. 3. 51
13	15. 51, 0	1. 5, 5	2. 24, 3	0. 0005353	6. 3. 32
19	15. 52, 2	1. 5, 0	2. 24, 6	0. 0004836	6. 3. 13
25	15. 53, 4	1. 4, 7	2. 25, 0	0. 0004242	6. 2. 54

Eclipses of the SATELLITES of J U P I T E R.

I. Satellite. Immerfions.		II. Satellite. Immerfions.		III. Satellite.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
1	7. 41. 57	3	2. 12. 18	1	7. 26. 27 I
3	2. 10. 30	6	15* 31. 33	1	10. 10. 33 E
4	20. 39. 7	10	4. 50. 50	8	11* 28. 14 I
6	15* 7. 44	13	18. 10. 15	8	14* 10. 58 E
8	9. 36. 27	17	7. 29. 48	15	15* 30. 29 I
10	4. 5. 8	20	20. 49. 30	22	19. 33. 19 I
11	22. 33. 51	24	10* 9. 7	29	23. 36. 40 I
13	17. 2. 36	27	23. 29. 6	IV. Satellite.	
15	11* 31. 21	31	12* 49. 8		
17	6. 0. 13				
19	0. 29. 4				
20	18. 57. 59				
22	13* 26. 52				
24	7. 55. 54				
26	2. 24. 50				
27	20. 53. 51				
29	15* 22. 54				
31	9* 52. 0				
				17	1. 35. 51 I
				17	4. 9. 0 E

Days.	Heliocentric Longitude.	Heliocentric Latitude.	Geocentric Longitude.	Geocentric Latitude.	Declination.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

MERCURY. Greatest Elong. 7^d.

1	7. 24. 6	1. 18	5. 5. 45	0. 28 S	8. 59 N	1. 42
7	8. 10. 43	2. 57	5. 12. 31	1. 30	5. 27	1. 43
13	8. 27. 15	4. 38	5. 17. 39	2. 36	2. 30	1. 37
19	9. 14. 28	5. 59	5. 20. 35	3. 37	0. 25 N	1. 24
25	10. 3. 11	6. 49	5. 20. 30	4. 19	0. 12 S	1. 0

VENUS.

1	5. 17. 56	3. 23 N	4. 25. 15	1. 29 N	14. 31 N	1. 5
7	5. 27. 40	3. 18	5. 2. 37	1. 28	11. 55	1. 10
13	6. 7. 22	3. 8	5. 10. 0	1. 25	9. 8	1. 15
19	6. 17. 3	2. 52	5. 17. 22	1. 19	6. 13	1. 20
25	6. 26. 42	2. 31	5. 24. 43	1. 10	3. 11	1. 25

MARS.

1	6. 27. 14	0. 40 N	5. 28. 30	0. 31 N	1. 3 N	3. 8
7	7. 0. 6	0. 34	6. 2. 15	0. 26	0. 30 S	2. 58
13	7. 3. 0	0. 29	6. 6. 2	0. 21	2. 5	2. 49
19	7. 5. 54	0. 24	6. 9. 51	0. 17	3. 39	2. 41
25	7. 8. 51	0. 18	6. 13. 43	0. 13	5. 13	2. 33

JUPITER.

1	11. 29. 6	1. 18 S	0. 9. 18	1. 29 S	2. 20 N	15. 47
7	11. 29. 39	1. 18	0. 9. 11	1. 30	2. 16	15. 23
13	0. 0. 12	1. 18	0. 8. 56	1. 32	2. 8	15. 0
19	0. 0. 45	1. 18	0. 8. 35	1. 34	1. 58	14. 36
25	0. 1. 18	1. 19	0. 8. 7	1. 35	1. 46	14. 12

SATURN.

1	5. 15. 6	2. 1 N	5. 11. 47	1. 51 N	8. 52 N	2. 8
7	5. 15. 19	2. 1	5. 12. 28	1. 51	8. 36	1. 48
13	5. 15. 31	2. 2	5. 13. 10	1. 51	8. 19	1. 28
19	5. 15. 44	2. 2	5. 13. 54	1. 51	8. 3	1. 8
25	5. 15. 56	2. 2	5. 14. 38	1. 51	7. 46	0. 48

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Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midnight.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	Su.	9. 24. 4. 0	10. 1. 5. 18	4. 45. 16 N	4. 29. 38 N
2	M.	10. 8. 2. 30	10. 14. 55. 23	4. 10. 9	3. 47. 7
3	Tu.	10. 21. 43. 18	10. 28. 26. 6	3. 21. 8	2. 52. 38
4	W.	11. 5. 3. 32	11. 11. 35. 37	2. 22. 11	1. 50. 11
5	Th.	11. 18. 2. 19	11. 24. 23. 48	1. 17. 2	0. 43. 25 N
6	F.	0. 0. 40. 25	0. 6. 52. 34	0. 9. 40 N	0. 23. 50 S
7	Sa.	0. 13. 0. 35	0. 19. 5. 1	0. 56. 43 S	1. 28. 40
8	Su.	0. 25. 6. 22	1. 1. 5. 16	1. 59. 22	2. 28. 34
9	M.	1. 7. 2. 20	1. 12. 58. 11	2. 56. 3	3. 21. 27
10	Tu.	1. 18. 53. 32	1. 24. 48. 55	3. 44. 43	4. 5. 34
11	W.	2. 0. 45. 2	2. 6. 42. 28	4. 23. 49	4. 39. 15
12	Th.	2. 12. 41. 45	2. 18. 43. 31	4. 51. 46	5. 1. 6
13	F.	2. 24. 48. 13	3. 0. 56. 21	5. 7. 8	5. 9. 44
14	Sa.	3. 7. 8. 11	3. 13. 24. 7	5. 8. 46	5. 4. 5
15	Su.	3. 19. 44. 16	3. 26. 8. 55	4. 55. 39	4. 43. 25
16	M.	4. 2. 38. 3	4. 9. 11. 41	4. 27. 22	4. 7. 38
17	Tu.	4. 15. 49. 40	4. 22. 31. 53	3. 44. 20	3. 17. 42
18	W.	4. 29. 18. 1	5. 6. 7. 52	2. 48. 0	2. 15. 33
19	Th.	5. 13. 0. 59	5. 19. 57. 0	1. 40. 55	1. 4. 27 S
20	F.	5. 26. 55. 36	6. 3. 56. 24	0. 26. 45 S	0. 11. 33 N
21	Sa.	6. 10. 58. 55	6. 18. 2. 57	0. 49. 51 N	1. 27. 35
22	Su.	6. 25. 8. 1	7. 2. 13. 48	2. 4. 4	2. 38. 42
23	M.	7. 9. 20. 0	7. 16. 26. 26	3. 10. 57	3. 40. 15
24	Tu.	7. 23. 32. 50	8. 0. 38. 50	4. 6. 10	4. 28. 19
25	W.	8. 7. 44. 18	8. 14. 48. 52	4. 46. 13	4. 59. 47
26	Th.	8. 21. 52. 23	8. 28. 54. 32	5. 8. 47	5. 13. 5
27	F.	9. 5. 55. 3	9. 12. 53. 31	5. 12. 43	5. 7. 42
28	Sa.	9. 19. 49. 46	9. 26. 43. 22	4. 58. 12	4. 44. 27
29	Su.	10. 3. 34. 11	10. 10. 21. 46	4. 26. 38	4. 5. 14
30	M.	10. 17. 5. 56	10. 23. 46. 25	3. 40. 37	3. 13. 9
31	Tu.	11. 0. 23. 2	11. 6. 55. 45	2. 43. 18	2. 11. 31

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Days of the Month.	Days of the Week.	D's Age.	D's Pass- age over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's De- clination at Noon.	D's De- clination at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	Su.	14	11. 19	295. 5	302. 18	16. 38 S	15. 33 S
2	M.	15	12. 12	309. 21	316. 15	14. 15	12. 45
3	Tu.	16	13. 3	323. 0	329. 35	11. 6	9. 20
4	W.	17	13. 51	336. 1	342. 19	7. 28	5. 31
5	Th.	18	14. 38	348. 30	354. 34	3. 33 S	1. 34 S
6	F.	19	15. 23	0. 33	6. 28	0. 25 N	2. 22 N
7	Sa.	20	16. 8	12. 20	18. 10	4. 16	6. 7
8	Su.	21	16. 52	24. 0	29. 49	7. 52	9. 33
9	M.	22	17. 37	35. 40	41. 33	11. 6	12. 33
10	Tu.	23	18. 22	47. 29	53. 29	13. 51	15. 1
11	W.	24	19. 9	59. 33	65. 41	16. 1	16. 52
12	Th.	25	19. 57	71. 54	78. 11	17. 31	17. 59
13	F.	26	20. 47	84. 33	90. 59	18. 15	18. 18
14	Sa.	27	21. 37	97. 29	104. 2	18. 8	17. 45
15	Su.	28	22. 28	110. 37	117. 14	17. 8	16. 18
16	M.	29	23. 19	123. 52	130. 30	15. 15	13. 59
17	Tu.	1	♂	137. 9	143. 48	12. 32	10. 54
18	W.	2	0. 10	150. 26	157. 4	9. 6	7. 10
19	Th.	3	1. 1	163. 42	170. 21	5. 8	3. 0 N
20	F.	4	1. 52	177. 0	183. 42	0. 49 N	1. 23 S
21	Sa.	5	2. 44	190. 25	197. 12	3. 35 S	5. 44
22	Su.	6	3. 36	204. 3	210. 58	7. 49	9. 47
23	M.	7	4. 30	217. 58	225. 3	11. 36	13. 15
24	Tu.	8	5. 26	232. 13	239. 27	14. 42	15. 56
25	W.	9	6. 23	246. 45	254. 7	16. 55	17. 38
26	Th.	10	7. 21	261. 29	268. 51	18. 5	18. 15
27	F.	11	8. 18	276. 12	283. 29	18. 8	17. 44
28	Sa.	12	9. 14	290. 42	297. 49	17. 5	16. 11
29	Su.	13	10. 8	304. 49	311. 41	15. 4	13. 44
30	M.	14	11. 0	318. 25	325. 1	12. 13	10. 34
31	Tu.	15	11. 50	331. 29	337. 50	8. 48	6. 56

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Days of the Month.	Days of the Week.	Semidr. γ at Noon.	Semidr. γ at Mid-night.	Hor. Par. γ at Noon.	Hor. Par. γ at Midnight.	Hor. Par. γ at Noon.	Hor. Par. γ at Midnight.
		M. S.	M. S.	M. S.	M. S.	M. S.	M. S.
1	Su.	16. 5	16. 1	59. 3	58. 48	4841	4859
2	M.	15. 57	15. 52	58. 31	58. 13	4880	4902
3	Tu.	15. 47	15. 41	57. 53	57. 34	4927	4951
4	W.	15. 35	15. 29	57. 12	56. 51	4979	5005
5	Th.	15. 24	15. 18	56. 30	56. 10	5032	5058
6	F.	15. 13	15. 8	55. 50	55. 32	5084	5107
7	Sa.	15. 3	15. 0	55. 15	55. 2	5129	5146
8	Su.	14. 56	14. 54	54. 49	54. 40	5163	5175
9	M.	14. 52	14. 50	54. 32	54. 27	5186	5193
10	Tu.	14. 50	14. 50	54. 25	54. 25	5195	5195
11	W.	14. 51	14. 52	54. 28	54. 33	5191	5185
12	Th.	14. 54	14. 57	54. 41	54. 51	5174	5161
13	F.	15. 0	15. 4	55. 4	55. 18	5144	5125
14	Sa.	15. 8	15. 13	55. 34	55. 51	5104	5082
15	Su.	15. 18	15. 24	56. 10	56. 30	5058	5032
16	M.	15. 29	15. 35	56. 49	57. 9	5008	4983
17	Tu.	15. 40	15. 45	57. 29	57. 48	4957	4933
18	W.	15. 50	15. 54	58. 6	58. 23	4911	4890
19	Th.	15. 58	16. 2	58. 38	58. 51	4871	4855
20	F.	16. 5	16. 8	59. 3	59. 12	4841	4830
21	Sa.	16. 10	16. 11	59. 20	59. 25	4820	4813
22	Su.	16. 13	16. 13	59. 29	59. 31	4809	4806
23	M.	16. 13	16. 13	59. 32	59. 31	4805	4806
24	Tu.	16. 12	16. 11	59. 29	59. 25	4809	4813
25	W.	16. 10	16. 8	59. 21	59. 15	4819	4826
26	Th.	16. 7	16. 5	59. 9	59. 1	4833	4843
27	F.	16. 3	16. 0	58. 52	58. 42	4854	4866
28	Sa.	15. 57	15. 54	58. 32	58. 20	4878	4893
29	Su.	15. 50	15. 47	58. 8	57. 54	4908	4926
30	M.	15. 42	15. 39	57. 39	57. 24	4945	4964
31	Tu.	15. 34	15. 30	57. 8	56. 51	4984	5005

Distances of γ 's Center from Stars, and from \odot east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	α Pegasi.	56. 40. 17	55. 2. 46	53. 25. 44	51. 49. 15
2		43. 57. 3	42. 25. 3	40. 54. 0	39. 23. 57
3		72. 28. 4	70. 49. 32	69. 11. 21	67. 33. 32
4	α Arietis.	59. 30. 10	57. 54. 41	56. 19. 38	54. 45. 2
5		46. 59. 8			
6	Aldebaran.	78. 46. 0	77. 9. 50	75. 33. 58	73. 58. 24
7		66. 5. 5	64. 31. 17	62. 57. 45	61. 24. 29
8		53. 42. 5	52. 10. 20	50. 38. 48	49. 7. 30
		41. 34. 0			
8		85. 15. 17	83. 46. 50	82. 18. 48	80. 50. 48
9	Pollux.	73. 32. 57	72. 5. 46	70. 38. 42	69. 11. 45
10		61. 58. 22			
7			120. 43. 58	119. 19. 53	117. 56. 0
8		110. 59. 33	109. 36. 47	108. 14. 10	106. 51. 41
9		100. 1. 9	98. 39. 22	97. 17. 39	95. 56. 1
10	The Sun.	89. 8. 29	87. 47. 3	86. 25. 38	85. 4. 12
11		78. 16. 36	76. 54. 56	75. 33. 11	74. 11. 21
12		67. 20. 38	65. 58. 6	64. 35. 25	63. 12. 35
13		56. 15. 53	54. 51. 57	53. 27. 49	52. 3. 27
14		44. 58. 22	43. 32. 39	42. 6. 42	40. 40. 26
19		83. 28. 40	81. 45. 56	80. 3. 2	78. 19. 58
20	Antares.	69. 42. 28	67. 58. 36	66. 14. 38	64. 30. 36
21		55. 49. 47	54. 5. 33	52. 21. 20	50. 37. 10
22		41. 57. 41	40. 14. 16	38. 31. 3	36. 48. 6
23		79. 4. 25	77. 27. 51	75. 51. 26	74. 15. 12
24	α Aquilæ.	66. 17. 28	64. 42. 50	63. 8. 35	61. 34. 46
25		53. 53. 13			
25	β Capricorni.	52. 57. 41	51. 11. 40	49. 25. 55	47. 40. 9
26		38. 52. 30	37. 7. 15	35. 22. 5	33. 37. 2
27		24. 53. 16			
27		73. 35. 43	71. 57. 10	70. 18. 48	68. 40. 40
28	α Pegasi.	60. 34. 20	58. 58. 4	57. 22. 12	55. 46. 46
29		47. 56. 54	46. 24. 43	44. 53. 14	43. 22. 30
30		76. 58. 19	75. 20. 23	73. 42. 47	72. 5. 25
31	α Arietis.	64. 2. 42	62. 27. 1	60. 51. 39	59. 16. 37
S. 1		51. 26. 49			

AUGUST 1773.

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Distances of γ 's Center from Stars, and from \odot east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	α Pegasi.	50. 13. 22	48. 38. 9	47. 3. 39	45. 29. 56
2		37. 54. 57			
2	α Arietis.	79. 5. 31	77. 25. 40	75. 46. 9	74. 6. 57
3		65. 56. 4	64. 19. 0	62. 42. 19	61. 6. 3
4		53. 10. 53	51. 37. 12	50. 4. 1	48. 31. 19
5	Aldebaran.	72. 23. 9	70. 48. 12	69. 13. 32	67. 39. 10
6		59. 51. 29	58. 18. 45	56. 46. 17	55. 14. 4
7		47. 36. 24	46. 5. 31	44. 34. 49	43. 4. 19
8	Pollux.	79. 22. 57	77. 55. 15	76. 27. 41	75. 0. 15
9		67. 44. 54	66. 18. 9	64. 51. 29	63. 24. 53
7	The Sun.	116. 32. 21	115. 8. 53	113. 45. 36	112. 22. 29
8		105. 29. 20	104. 7. 7	102. 45. 1	101. 23. 2
9		94. 34. 26	93. 12. 54	91. 51. 24	90. 29. 56
10		83. 42. 46	82. 21. 18	80. 59. 47	79. 38. 13
11		72. 49. 25	71. 27. 24	70. 5. 16	68. 43. 1
12		61. 49. 36	60. 26. 27	59. 3. 7	57. 39. 36
13		50. 38. 53	49. 14. 6	47. 49. 5	46. 23. 51
14		39. 13. 56			
19	Antares.	76. 36. 44	74. 53. 21	73. 9. 51	71. 26. 13
20		62. 46. 30	61. 2. 21	59. 18. 11	57. 34. 0
21		48. 53. 3	47. 9. 1	45. 25. 5	43. 41. 18
22		35. 5. 26			
22	α Aquilæ.	85. 31. 41	83. 54. 46	82. 17. 54	80. 41. 7
23		72. 39. 9	71. 3. 19	69. 27. 44	67. 52. 27
24		60. 1. 24	58. 28. 32	56. 56. 11	55. 24. 24
25	β Capricorni.	45. 54. 27	44. 8. 50	42. 23. 18	40. 37. 51
26		31. 52. 4	30. 7. 12	28. 22. 27	26. 37. 48
27	α Pegasi.	67. 2. 49	65. 25. 15	63. 47. 57	62. 10. 58
28		54. 11. 46	52. 37. 14	51. 3. 12	49. 29. 45
29		41. 52. 34			
29	α Arietis.	83. 31. 59	81. 53. 13	80. 14. 40	78. 36. 21
30		70. 28. 19	68. 51. 29	67. 14. 56	65. 38. 41
31		57. 41. 55	56. 7. 34	54. 33. 36	53. 0. 1

Distances of γ 's Center from Stars, and from \odot west of her.

Days	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Antares.	48. 18. 36	50. 1. 41	51. 44. 38	53. 27. 23
2		61. 59. 20	63. 41. 13	65. 22. 53	67. 4. 20
3		75. 27. 48	77. 7. 42	78. 47. 18	80. 26. 38
4	β Capri- corni.	34. 10. 25	35. 49. 10	37. 27. 36	39. 5. 43
5		47. 11. 30	48. 47. 42	50. 23. 35	51. 59. 9
6	α Aquilæ.	65. 49. 25	67. 12. 57	68. 36. 28	69. 59. 56
7		76. 56. 14	78. 19. 13	79. 42. 4	81. 4. 49
8		87. 56. 37			
8	Fomal- haut.	56. 17. 55	57. 37. 1	58. 56. 18	60. 15. 45
9		66. 55. 13	68. 15. 28	69. 35. 49	70. 56. 16
10		77. 39. 47	79. 0. 43	80. 21. 42	81. 42. 45
11	α Pegasi.	73. 9. 15	74. 33. 25	75. 57. 44	77. 22. 11
12		84. 26. 40			
12	α Arietis.	40. 49. 59	42. 14. 51	43. 40. 6	45. 5. 45
13		52. 19. 35	53. 47. 25	55. 15. 35	56. 44. 5
14		64. 11. 26	65. 41. 52	67. 12. 38	68. 43. 43
15		76. 23. 49			
15	Aldeba- rar.	42. 55. 45	44. 31. 5	46. 6. 46	47. 42. 44
16		55. 47. 18	57. 25. 7	59. 3. 13	60. 41. 36
21	The Sun.	42. 22. 3	44. 0. 50	45. 39. 42	47. 18. 40
22		55. 34. 23	57. 13. 39	58. 52. 57	60. 32. 17
23		68. 48. 59	70. 28. 19	72. 7. 38	73. 46. 55
24		82. 3. 3	83. 42. 8	85. 21. 10	87. 0. 9
25		95. 14. 14	96. 52. 49	98. 31. 20	100. 9. 46
26		108. 20. 47	109. 58. 43	111. 36. 33	113. 14. 17
27		121. 21. 22			
25	Spica κ	47. 30. 18	49. 15. 49	51. 1. 17	52. 46. 41
26		61. 32. 46	63. 17. 45	65. 2. 38	66. 47. 26
27		75. 29. 57	77. 14. 7	78. 58. 9	80. 42. 3
28	Antares.	44. 12. 33	45. 53. 9	47. 33. 45	49. 14. 20
29		57. 36. 37	59. 16. 48	60. 56. 52	62. 36. 49
30		70. 54. 27			
30	β Capri- corni.	16. 11. 30	17. 51. 59	19. 32. 15	21. 12. 19
31		29. 29. 24	31. 8. 10	32. 46. 42	34. 25. 0
S. 1.		42. 32. 46			

AUGUST 1773.

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Distances of γ 's Center from Stars, and from \odot west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Antares.	55. 10. 9	56. 52. 41	58. 35. 4	60. 17. 17
2		68. 45. 34	70. 26. 32	72. 7. 12	73. 47. 38
3		82. 5. 41			
3	β Capri- corni.	27. 32. 13	29. 12. 15	30. 51. 57	32. 31. 21
4		40. 43. 31	42. 20. 59	43. 58. 9	45. 34. 59
5		53. 34. 24			
5	α Aquila.	60. 15. 23	61. 38. 51	63. 2. 21	64. 25. 52
6		71. 23. 22	72. 46. 43	74. 9. 58	75. 33. 9
7		82. 27. 27	83. 49. 57	85. 12. 19	86. 34. 32
8	Fomal- haut.	61. 35. 22	62. 55. 8	64. 15. 2	65. 35. 4
9		72. 16. 48	73. 37. 25	74. 58. 8	76. 18. 56
10		83. 3. 51			
10	α Pegasi.	67. 33. 53	68. 57. 32	70. 21. 18	71. 45. 13
11		78. 46. 47	80. 11. 32	81. 36. 26	83. 1. 29
12	α Arietis.	46. 31. 47	47. 58. 12	49. 24. 58	50. 52. 6
13		58. 12. 55	59. 42. 4	61. 11. 32	62. 41. 20
14		70. 15. 7	71. 46. 50	73. 18. 51	74. 51. 11
15	Aldeba- ran.	49. 19. 3	50. 55. 39	52. 32. 33	54. 9. 47
16		62. 20. 16			
20	The Sun.			39. 4. 49	40. 43. 22
21		48. 57. 42	50. 36. 48	52. 15. 57	53. 55. 9
22		62. 11. 36	63. 50. 56	65. 30. 17	67. 9. 38
23		75. 26. 12	77. 5. 28	78. 44. 42	80. 23. 54
24		88. 39. 4	90. 17. 57	91. 56. 47	93. 35. 33
25		101. 48. 8	103. 26. 25	105. 4. 38	106. 42. 45
26		114. 51. 55	116. 29. 26	118. 6. 51	119. 44. 10
24	Spica π	40. 27. 39	42. 13. 24	43. 59. 5	45. 44. 43
25		54. 32. 2	56. 17. 20	58. 2. 33	59. 47. 42
26		68. 32. 8	70. 16. 45	72. 1. 16	73. 45. 40
27		82. 25. 49			
27	Antares.	37. 30. 38	39. 11. 1	40. 51. 28	42. 31. 59
28		50. 54. 55	52. 35. 27	54. 15. 55	55. 56. 19
29		64. 16. 39	65. 56. 20	67. 35. 52	69. 15. 14
30					
30	β Capri- corni.	22. 52. 10	24. 31. 48	26. 11. 13	27. 50. 25
31		36. 3. 4	37. 40. 53	39. 18. 26	40. 55. 44

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AUGUST 1773.

Configurations of the SATELLITES of JUPITER
at 2 o' th' Clock in the Morning.

1	1.0	.2	⊙	4.	7.
2	3.	4.	1.	⊙	.2
3		4.	7.	⊙	.1 2.
4	4.	.3	1 6 2	⊙	
5	4.		.3.2	⊙	1.
6	.4		.1	⊙	.3 .2
7	.4			⊙	1.2. .2
8	1.0	.4	2.	⊙	3.
9	2.0 3.		.4 1.	⊙	
10		3.		⊙	1 6 4 2.
11		.3	1.2.	⊙	.4
12			.3.2	⊙	.1 .4
13			.1	⊙	.3 .2 .4
14				⊙	1 6 2 .3 4.
15		2.	.1	⊙	3. 4.
16	1.0 2.0			⊙	3. 4.
17		3.		⊙	.1 2 6 4
18	4.	3.	1. 2.	⊙	
19		.3 .2		⊙	.1
20		4.	.1	⊙	.3 .2
21	4.			⊙	1 6 2 .3
22	4.	2.	.1	⊙	7.
23	.4		.2	⊙	3. 1.0
24	.4	3.		⊙	.2 1.0
25	2.	3.	.4 1.	⊙	
26		.3 .2	.4	⊙	.1
27	3.0		1.	⊙	.2 .4
28				⊙	1 6 2 .3 .4
29		2.	.1	⊙	3. .4
30			.2	⊙	1. 3. .4
31	1.0		3.	⊙	.2 .4

SEPTEMBER 1773. [97]

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.
			D. H. M.
1	W.	Giles.	Last Quarter — 8. 16. 20
2	Th.	Londonburnt 1666, O.S.	New Moon — 16. 3. 49
3	F.		First Quarter — 22. 20. 22
4	Sa.		Full Moon — 30. 6. 10
			Other Phenomena.
			D.
5	Su.	13th Sunday after Trinity.	2. ☾ ♄ 21 ^h . 17'.
6	M.		3. ☾ ☿ 15 ^h . 45'.
7	Tu.	Eunuchus.	7. ☾ ☿ 11 ^h . 57'.
8	W.	Nativity of B. V. Mary.	☾ ♄ ♂ 14 ^h . 6'.
9	Th.		☾ ♄ ♂ 14 ^h . 37'.
10	F.		☾ ☿ Im. 20 ^h . 47'.
11	Sa.		11' S. of ☾'s cent. Em. 21 ^h . 39'. * 9' S.
12	Su.	14th Sunday after Trinity.	12. ☾ ♄ ☿ 22 ^h . 49'.
13	M.		☾ ♄ ☿ 23 ^h . 47'.
14	Tu.	Holy Cross.	13. ☾ ☿ Im. 17 ^h . 16 ^h . 3'.
15	W.		13' S. of ☾'s cent.
16	Th.		Em. 17 ^h . 58'. * 11' S.
17	F.	Lambert.	14. ☾ ♄ 3 ^h . 52'.
18	Sa.		☿ Stationary.
19	Su.	15th Sunday after Trinity.	16. ☾ eclipsed, invisible.
20	M.		18. ☾ ♄ 17 ^h . 41'.
21	Tu.	St. Matthew.	20. ☾ ♄ ☿ 3 ^h . 39'.
22	W.	K. Geo. III. crowned 1761.	☾ ☿ ☿ 7 ^h . 21'.
23	Th.		☾ ☿ ☿ 11 ^h . 30'.
24	F.		22. ☾ enters ☿ at 6 ^h . 39'.
25	Sa.		24. ☾ ♄ ☿ diff. Lat. 38'.
26	Su.	16th Sunday after Trinity.	☿ ☿ ☿ diff. Lat. 8'.
27	M.	[St. Cyprian.	25. ☾ ☿ ☿ 1 ^h . 18'.
28	Tu.		☿ ♄ ☿ diff. Lat. 36'.
29	W.	St. Michael. Prs. Charlotte	27. ☾ ☿ ☿ 6 ^h . 25'.
30	Th.	St. Jerome. [born.	28. ☿ ☿ ☿ diff. Lat. 2 ^h . 3'.
			29. ☾ ♄ 22 ^h . 24'.
			30. ☾ visibly eclipsed.
			☾ ☿ ☿ 23 ^h . 31'.

[98] SEPTEMBER 1773.

Days of the Month.	Days of the Week.	Sun's Longitude.			Sun's Right Asc. in Time.			Sun's Declin. North.			Equat. of Time. Sub.		Diff.
		S.	D.	M. S.	H.	M.	S.	D.	M.	S.	M.	S.	
1	W.	5.	9.	15. 21	10.	43.	22, 0	8.	6.	30	0. 23, 2		
2	Th.	5.	10.	13. 30	10.	46.	59, 5	7.	44.	34	0. 42, 2		19, 0
3	F.	5.	11.	11. 41	10.	50.	36, 7	7.	22.	30	1. 1, 5		19, 3
4	Sa.	5.	12.	9. 54	10.	54.	13, 7	7.	0.	19	1. 21, 0		19, 5
5	Su.	5.	13.	8. 9	10.	57.	50, 5	6.	38.	1	1. 40, 7		19, 7
													19, 9
6	M.	5.	14.	6. 26	11.	1.	27, 1	6.	15.	37	2. 0, 6		20, 1
7	Tu.	5.	15.	4. 45	11.	5.	3, 5	5.	53.	6	2. 20, 7		20, 3
8	W.	5.	16.	3. 6	11.	8.	39, 7	5.	30.	29	2. 41, 0		20, 4
9	Th.	5.	17.	1. 29	11.	12.	15, 7	5.	7.	47	3. 1, 4		20, 5
10	F.	5.	17.	59. 55	11.	15.	51, 7	4.	44.	59	3. 21, 9		20, 6
11	Sa.	5.	18.	58. 23	11.	19.	27, 5	4.	22.	6	3. 42, 5		20, 7
12	Su.	5.	19.	56. 53	11.	23.	3, 4	3.	59.	8	4. 3, 2		20, 8
13	M.	5.	20.	55. 25	11.	26.	39, 2	3.	36.	6	4. 24, 0		20, 8
14	Tu.	5.	21.	53. 59	11.	30.	14, 9	3.	13.	0	4. 44, 8		20, 8
15	W.	5.	22.	52. 36	11.	33.	50, 5	2.	49.	49	5. 5, 6		20, 9
16	Th.	5.	23.	51. 14	11.	37.	26, 1	2.	26.	37	5. 26, 5		20, 9
17	F.	5.	24.	49. 54	11.	41.	1, 7	2.	3.	21	5. 47, 4		20, 9
18	Sa.	5.	25.	48. 36	11.	44.	37, 3	1.	40.	2	6. 8, 3		20, 9
19	Su.	5.	26.	47. 20	11.	48.	13, 0	1.	16.	41	6. 29, 2		20, 8
20	M.	5.	27.	46. 6	11.	51.	48, 7	0.	53.	18	6. 50, 0		20, 7
21	Tu.	5.	28.	44. 54	11.	55.	24, 4	0.	29.	54	7. 10, 7		20, 7
22	W.	5.	29.	43. 43	11.	59.	0, 2	0.	6.	29	7. 31, 4		20, 5
								South.					
23	Th.	6.	0.	42. 34	12.	2.	36, 2	0.	16.	57	7. 51, 9		20, 5
24	F.	6.	1.	41. 27	12.	6.	12, 2	0.	40.	24	8. 12, 4		20, 3
25	Sa.	6.	2.	40. 21	12.	9.	48, 4	1.	3.	50	8. 32, 7		20, 1
26	Su.	6.	3.	39. 17	12.	13.	24, 8	1.	27.	16	8. 52, 8		20, 0
27	M.	6.	4.	38. 15	12.	17.	1, 3	1.	50.	42	9. 12, 8		19, 8
28	Tu.	6.	5.	37. 14	12.	20.	38, 0	2.	14.	6	9. 32, 6		19, 6
29	W.	6.	6.	36. 15	12.	24.	14, 9	2.	37.	30	9. 52, 2		19, 3
30	Th.	6.	7.	35. 19	12.	27.	52, 1	3.	0.	52	10. 11, 5		18, 9

S E P T E M B E R 1773. [99]

Days.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	15. 55, 0	1. 4, 3	2. 25, 4	0. 003495	6. 2. 31
7	15. 56, 5	1. 4, 0	2. 25, 8	0. 002839	6. 2. 12
13	15. 58, 0	1. 4, 0	2. 26, 3	0. 002159	6. 1. 53
19	15. 59, 6	1. 4, 0	2. 26, 8	0. 001434	6. 1. 34
25	16. 1, 3	1. 4, 1	2. 27, 3	0. 000673	6. 1. 15

Eclipses of the SATELLITES of J U P I T E R.

I. Satellite. Immerfions.		II. Satellite. Immerfions.		III. Satellite.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
2	4. 21. 4	4	2. 9. 18	6	3. 20. 21 I
3	22. 50. 10	7	15*29. 24	13	7*44. 16 I
5	17. 19. 18	11	4. 49. 33	20	11*48. 38 I
7	11*48. 26	14	18. 9. 45	27	18. 25. 54 E
9	6. 17. 38	18	7*29. 59	IV. Satellite.	
11	0. 46. 46	21	20. 50. 12		
12	19. 16. 0	25	10*10. 25	2	20. 1. 1 I
14	13*45. 10	Emerfions.		2	22. 23. 1 E
16	8*14. 27	29	2. 1. 18	19	14*28. 28 I
18	2. 43. 37			19	16*38. 21 E
19	21. 12. 53				
21	15*42. 6				
23	10*11. 22				
25	4. 40. 35				
	Emerfions.				
27	1. 20. 57				
28	19. 50. 9				
30	14*19. 22				

[100] SEPTEMBER 1773.

Days.	Heliocentric Longitude.	Heliocentric Latitude.	Geocentric Longitude.	Geocentric Latitude.	Declination.	Pass. over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

MERCURY. Inf. δ $4^{\circ} 11^h$. Greatest Elong. 20^d .

1	10. 28. 18	6. 49 S	5. 16. 1	4. 14 S	1. 37 N	0. 19
7	11. 24. 2	5. 30	5. 10. 14	2. 59	4. 58	23. 32
13	0. 24. 54	2. 30 S	5. 6. 59	1. 5 S	7. 57	23. 5
19	2. 0. 42	1. 48 N	5. 9. 4	0. 37 N	8. 45	22. 56
25	3. 8. 24	5. 34	5. 16. 0	1. 36	7. 1	23. 3

V E N U S.

1	7. 7. 56	2. 2 N	6. 3. 18	0. 58 N	0. 26 S	1. 30
7	7. 17. 31	1. 33	6. 10. 39	0. 45	3. 32	1. 35
13	7. 27. 5	1. 1	6. 17. 59	0. 30	6. 36	1. 40
19	8. 6. 38	0. 28 N	6. 25. 19	0. 14 N	9. 35	1. 46
25	8. 16. 9	0. 6 S	7. 2. 38	0. 3 S	12. 27	1. 52

M A R S.

1	7. 12. 19	0. 11 N	6. 18. 16	0. 8 N	7. 3 S	2. 24
7	7. 15. 19	0. 6 N	6. 22. 15	0. 4 N	8. 37	2. 17
13	7. 18. 22	0. 0	6. 26. 15	0. 0	10. 9	2. 11
19	7. 21. 25	0. 6 S	7. 0. 17	0. 4 S	11. 39	2. 4
25	7. 24. 30	0. 12	7. 4. 22	0. 8	13. 7	1. 58

J U P I T E R. δ $26^{\circ} 15^h$.

1	0. 1. 56	1. 19 S	0. 7. 27	1. 36 S	1. 29 N	13. 44
7	0. 2. 29	1. 19	0. 6. 47	1. 37	1. 11	13. 20
13	0. 3. 2	1. 19	0. 6. 4	1. 38	0. 55	12. 56
19	0. 3. 35	1. 19	0. 5. 18	1. 39	0. 36	12. 32
25	0. 4. 8	1. 19	0. 4. 30	1. 39	0. 17	12. 7

S A T U R N. δ $8^{\circ} 9^h$.

1	5. 16. 11	2. 3 N	5. 15. 30	1. 51 N	7. 25 N	0. 26
7	5. 16. 23	2. 3	5. 16. 15	1. 51	7. 8	0. 7
13	5. 16. 35	2. 3	5. 17. 1	1. 51	6. 51	23. 46
19	5. 16. 48	2. 4	5. 17. 46	1. 52	6. 33	23. 27
25	5. 17. 0	2. 4	5. 18. 29	1. 52	6. 17	23. 8

S E P T E M B E R 1773. [101]

Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midn.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	W.	11. 13. 24. 19	11. 19. 48. 53	1. 38. 25 N	1. 42. 1 N
2	Th.	11. 26. 9. 23	0. 2. 25. 57	0. 29. 47 N	0. 4. 47 S
3	F.	0. 8. 38. 49	0. 14. 48. 3	0. 38. 58 S	1. 12. 25
4	Sa.	0. 20. 54. 7	0. 26. 57. 13	1. 44. 44	2. 15. 38
5	Su.	1. 2. 57. 48	1. 8. 56. 21	2. 44. 50	3. 14. 3
6	M.	1. 14. 53. 19	1. 20. 49. 13	3. 37. 5	3. 59. 42
7	Tu.	1. 26. 44. 33	2. 2. 40. 3	4. 19. 44	4. 37. 1
8	W.	2. 8. 36. 6	2. 14. 33. 22	4. 51. 21	5. 2. 36
9	Th.	2. 20. 32. 35	2. 26. 34. 8	5. 10. 39	5. 15. 19
10	F.	3. 2. 38. 42	3. 8. 46. 51	5. 16. 30	5. 14. 8
11	Sa.	3. 14. 59. 1	3. 21. 15. 38	5. 8. 7	4. 58. 19
12	Su.	3. 27. 37. 14	4. 4. 4. 0	4. 44. 44	4. 27. 26
13	M.	4. 10. 36. 15	4. 17. 14. 7	4. 6. 23	3. 41. 44
14	Tu.	4. 23. 57. 39	5. 0. 46. 41	3. 13. 43	2. 42. 33
15	W.	5. 7. 41. 6	5. 14. 40. 35	2. 8. 34	1. 32. 15
16	Th.	5. 21. 44. 44	5. 28. 52. 50	0. 54. 9 S	0. 14. 47 S
17	F.	5. 6. 4. 27	6. 13. 18. 53	0. 25. 6 N	1. 4. 53 N
18	Sa.	6. 20. 35. 19	6. 27. 53. 2	1. 43. 46	2. 21. 3
19	Su.	7. 5. 11. 16	7. 12. 29. 13	2. 56. 9	3. 28. 16
20	M.	7. 19. 46. 17	7. 27. 1. 51	3. 56. 58	4. 21. 45
21	Tu.	8. 4. 15. 23	8. 11. 26. 26	4. 42. 13	4. 58. 11
22	W.	8. 18. 34. 33	8. 25. 39. 22	5. 9. 23	5. 15. 48
23	Th.	9. 2. 40. 48	9. 9. 38. 39	5. 17. 24	5. 14. 20
24	F.	9. 16. 32. 47	9. 23. 23. 9	5. 6. 44	4. 54. 49
25	Sa.	10. 0. 9. 45	10. 6. 52. 35	4. 38. 53	4. 19. 17
26	Su.	10. 13. 31. 40	10. 20. 7. 4	3. 56. 23	3. 30. 28
27	M.	10. 26. 38. 54	11. 3. 7. 13	3. 2. 4	2. 31. 34
28	Tu.	11. 9. 32. 9	11. 15. 53. 49	1. 59. 27	1. 26. 3
29	W.	11. 22. 12. 17	11. 28. 27. 44	0. 51. 55 N	0. 17. 25 N
30	Th.	0. 4. 40. 13	0. 10. 50. 0	0. 17. 0 S	0. 50. 58 S

[102] S E P T E M B E R 1773.

Days of the Month.	Days of the Week.	D's Age.	D's Passage over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's Declinat. at Noon.	D's Declin. at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	W.	16	12. 36	344. 5	350. 13	5. 1 S	3. 3 S
2	Th.	17	13. 23	356. 17	2. 16	1. 4 S	0. 54 N
3	F.	18	14. 8	8. 12	14. 6	2. 50 N	4. 44
4	Sa.	19	14. 53	19. 58	25. 50	6. 33	8. 17
5	Su.	20	15. 37	31. 43	37. 35	9. 56	11. 28
6	M.	21	16. 22	43. 30	49. 28	12. 52	14. 8
7	Tu.	22	17. 8	55. 28	61. 32	15. 14	16. 11
8	W.	23	17. 56	67. 40	73. 51	16. 58	17. 34
9	Th.	24	18. 44	80. 6	86. 24	17. 58	18. 10
10	F.	25	19. 33	92. 46	99. 12	18. 10	17. 57
11	Sa.	26	20. 24	105. 40	112. 11	17. 31	16. 52
12	Su.	27	21. 15	118. 44	125. 19	16. 1	14. 56
13	M.	28	22. 7	131. 55	138. 33	13. 39	12. 10
14	Tu.	29	22. 58	145. 12	151. 52	10. 30	8. 41
15	W.	30	23. 50	158. 34	165. 18	6. 42	4. 37
16	Th.	1	♂	172. 4	178. 53	2. 27 N	0. 13 N
17	F.	2	0. 43	185. 45	192. 40	2. 2 S	4. 16 S
18	Sa.	3	1. 38	199. 40	206. 45	6. 27	8. 32
19	Su.	4	2. 33	213. 53	221. 7	10. 30	12. 18
20	M.	5	3. 30	228. 25	235. 47	13. 54	15. 16
21	Tu.	6	4. 28	243. 11	250. 37	16. 24	17. 15
22	W.	7	5. 26	258. 2	265. 27	17. 50	18. 8
23	Th.	8	6. 23	272. 48	280. 6	18. 9	17. 53
24	F.	9	7. 19	287. 17	294. 22	17. 22	16. 36
25	Sa.	10	8. 13	301. 20	308. 9	15. 36	14. 23
26	Su.	11	9. 4	314. 51	321. 24	13. 0	11. 28
27	M.	12	9. 53	327. 50	334. 9	9. 47	8. 1
28	Tu.	13	10. 41	340. 21	346. 28	6. 9	4. 15
29	W.	14	11. 27	352. 30	358. 28	2. 18 S	0. 21 S
30	Th.	15	12. 12	4. 24	10. 18	1. 36 N	3. 31 N

S E P T E M B E R 1773. [103]

Days of the Month.	Days of the Week.	Semidr. ☽ at Noon.	Semidr. ☽ at Mid-night.	Hor. Par. ☽ at Noon.	Hor. Par. ☽ at Midnight.	Propor. Lo- gar. at Noon.	Propor. Lo- gar. at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	W.	15. 25	15. 20	56. 34	56. 15	5027	5051
2	Th.	15. 16	15. 12	56. 1	55. 46	5069	5089
3	F.	15. 7	15. 3	55. 30	55. 16	5110	5128
4	Sa.	15. 0	14. 57	55. 2	54. 51	5146	5161
5	Su.	14. 54	14. 52	54. 41	54. 33	5174	5185
6	M.	14. 50	14. 49	54. 27	54. 24	5193	5197
7	Tu.	14. 49	14. 49	54. 22	54. 23	5199	5198
8	W.	14. 50	14. 52	54. 27	54. 34	5193	5183
9	Th.	14. 54	14. 57	54. 43	54. 54	5171	5157
10	F.	15. 1	15. 6	55. 9	55. 25	5137	5116
11	Sa.	15. 11	15. 16	55. 43	56. 3	5093	5067
12	Su.	15. 22	15. 29	56. 25	56. 48	5038	5009
13	M.	15. 35	15. 42	57. 12	57. 36	4979	4949
14	Tu.	15. 48	15. 55	58. 1	58. 25	4917	4887
15	W.	16. 1	16. 7	58. 47	59. 8	4860	4834
16	Th.	16. 12	16. 16	59. 27	59. 43	4811	4792
17	F.	16. 20	16. 23	59. 56	60. 6	4776	4764
18	Sa.	16. 24	16. 25	60. 13	60. 16	4755	4752
19	Su.	16. 25	16. 25	60. 17	60. 14	4751	4754
20	M.	16. 23	16. 21	60. 9	60. 1	4760	4770
21	Tu.	16. 18	16. 15	59. 51	59. 39	4782	4797
22	W.	16. 12	16. 8	59. 26	59. 12	4812	4830
23	Th.	16. 4	15. 59	58. 57	58. 42	4848	4866
24	F.	15. 55	15. 51	58. 26	58. 10	4886	4906
25	Sa.	15. 46	15. 42	57. 53	57. 37	4927	4947
26	Su.	15. 38	15. 33	57. 21	57. 5	4967	4987
27	M.	15. 29	15. 25	56. 51	56. 33	5005	5028
28	Tu.	15. 21	15. 17	56. 21	56. 6	5044	5063
29	W.	15. 13	15. 10	55. 52	55. 38	5081	5099
30	Th.	15. 6	15. 3	55. 25	55. 13	5116	5132

[104] S E P T E M B E R 1773.

Distances of γ 's Center from Stars, and from \odot east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Aldebaran.	83. 24. 51	81. 48. 0	80. 11. 23	78. 35. 2
2		70. 36. 56	69. 2. 3	67. 27. 24	65. 53. 0
3		58. 4. 26	56. 31. 26	54. 58. 40	53. 26. 7
4		45. 46. 28	44. 15. 9	42. 44. 2	41. 13. 5
5		33. 40. 59	32. 11. 2	30. 41. 13	29. 11. 33
6		21. 44. 56			
7	Pollux.	65. 53. 53	64. 27. 3	63. 0. 21	61. 33. 47
8		54. 22. 50	52. 56. 58	51. 31. 13	50. 5. 31
9		42. 59. 25	41. 34. 37	40. 9. 59	38. 45. 34
10	The Sun.	31. 47. 9			
11					
12					
13					
14					
15	Antares.	119. 9. 17	117. 47. 32	116. 25. 51	115. 4. 15
16		108. 16. 56	106. 55. 32	105. 34. 8	104. 12. 43
17		97. 25. 23	96. 3. 47	94. 42. 6	93. 20. 20
18		86. 29. 46	85. 7. 16	83. 44. 38	82. 21. 50
19		75. 25. 1	74. 1. 1	72. 36. 47	71. 12. 19
20	α Aquilæ.	64. 6. 5	62. 40. 1	61. 13. 39	59. 46. 58
21		52. 28. 44	51. 0. 5	49. 31. 6	48. 1. 46
22		40. 29. 32			
23					
24					
25	β Capricorni.	46. 24. 8	44. 37. 17	42. 50. 35	41. 4. 6
26		32. 16. 3	30. 31. 52	28. 48. 20	27. 5. 31
27					
28	α Pegasi.	69. 37. 39	68. 0. 5	66. 22. 56	64. 46. 13
29		56. 50. 36	55. 17. 24	53. 44. 57	52. 13. 17
30					
31	α Arietis.	42. 9. 25	40. 23. 19	38. 37. 26	36. 51. 46
32		28. 6. 40	26. 22. 18	24. 38. 10	22. 54. 15
33		14. 18. 4			
34					
35	α Arietis.	63. 36. 44	62. 0. 47	60. 25. 14	58. 50. 6
36		51. 1. 41	49. 29. 38	47. 58. 11	46. 27. 26
37		39. 5. 31			
38					
39	Aldebaran.	80. 26. 44	78. 50. 8	77. 13. 45	75. 37. 36
40		67. 40. 25	66. 5. 41	64. 31. 18	62. 57. 9
41		55. 10. 40	53. 38. 16	52. 6. 13	50. 34. 29
42		43. 1. 42	41. 32. 28	40. 3. 44	38. 35. 36
43	Aldebaran.	62. 4. 13	60. 31. 8	58. 58. 14	57. 25. 39
44		49. 44. 24			

S E P T E M B E R 1773. [105]

Distances of γ 's Center from Stars, and from \odot east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Aldebaran.	76. 58. 55	75. 23. 3	73. 47. 26	72. 12. 4
2		64. 18. 49	62. 44. 52	61. 11. 10	59. 37. 41
3		51. 53. 47	50. 21. 39	48. 49. 43	47. 17. 59
4		39. 42. 20	38. 11. 45	36. 41. 20	35. 11. 5
5		27. 42. 0	26. 12. 35	24. 43. 16	23. 14. 3
6	Pollux.	60. 7. 21	58. 41. 2	57. 14. 51	55. 48. 47
7		48. 40. 4	47. 14. 41	45. 49. 27	44. 24. 21
8		37. 21. 21	35. 57. 23	34. 33. 41	33. 10. 16
6	The Sun.	113. 42. 42	112. 21. 13	110. 59. 46	109. 38. 20
7		102. 51. 18	101. 29. 52	100. 8. 25	98. 46. 55
8		91. 58. 28	90. 36. 29	89. 14. 22	87. 52. 8
9		80. 58. 52	79. 35. 42	78. 12. 21	76. 48. 47
10		69. 47. 36	68. 22. 37	66. 57. 23	65. 31. 52
11		58. 19. 59	56. 52. 40	55. 25. 1	53. 57. 3
12		46. 32. 4	45. 2. 0	43. 31. 34	42. 0. 44
17	Antares.	53. 32. 11	51. 45. 9	49. 58. 7	48. 11. 6
18		39. 17. 50	37. 31. 47	35. 46. 5	34. 0. 49
19		25. 23. 21			
19	Aquilæ.	76. 11. 9	74. 32. 21	72. 53. 49	71. 15. 34
20		63. 9. 59	61. 34. 15	59. 59. 4	58. 24. 31
21		50. 42. 28			
21	β Capricorni.	49. 16. 3	47. 29. 4	45. 42. 10	43. 55. 44
22		35. 6. 19	33. 21. 5	31. 36. 3	29. 51. 15
23		21. 10. 34	19. 27. 7	17. 43. 52	16. 0. 51
24	α Pegasi.	57. 15. 24	55. 41. 11	54. 7. 29	52. 34. 18
25		44. 57. 24	43. 28. 9	41. 50. 43	40. 32. 9
26	γ Arietis.	74. 1. 41	72. 26. 0	70. 50. 33	69. 15. 22
27		61. 23. 16	59. 49. 41	58. 16. 23	56. 43. 22
28		49. 3. 8	47. 32. 9	46. 1. 34	44. 31. 25
29		37. 7. 49			
29	Aldebaran.	68. 18. 16	66. 44. 29	65. 10. 53	63. 37. 28
30		55. 52. 57	54. 20. 33	52. 48. 20	51. 16. 17

[106] SEPTEMBER 1773.

Distances of γ 's Center from Stars, and from \odot west of her.

D. M.S.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	β Capri- corni.	42. 32. 48	44. 9. 40	45. 46. 17	47. 22. 39
2		55. 20. 48	56. 55. 42	58. 30. 21	60. 4. 46
3		67. 53. 22	69. 26. 22	70. 59. 9	72. 31. 42
4		80. 11. 25			
4	Fomal- haut.	52. 35. 12	53. 54. 11	55. 13. 25	56. 32. 53
5		63. 12. 56	64. 33. 22	65. 53. 54	67. 14. 31
6		73. 58. 26			
6	α Pegasi.	58. 19. 56	59. 42. 56	61. 5. 49	62. 28. 54
7		69. 25. 36	70. 49. 13	72. 12. 55	73. 36. 43
8		80. 36. 53			
8	α Arietis.	37. 3. 27	38. 26. 22	39. 49. 41	41. 13. 25
9		48. 17. 41	49. 43. 31	51. 9. 39	52. 36. 7
10		59. 53. 1			
10	Aldeba- ran.	25. 54. 1	27. 25. 18	28. 56. 48	30. 28. 32
11		38. 11. 5	39. 44. 26	41. 18. 6	42. 52. 4
12		50. 46. 45	52. 22. 41	53. 58. 59	55. 35. 37
13		63. 44. 18			
13	Pollux.	23. 8. 7	24. 33. 53	26. 1. 16	27. 30. 9
14		35. 13. 33	36. 49. 11	38. 25. 37	40. 2. 50
15		48. 18. 45			
19	The Sun.	38. 29. 36	40. 11. 59	41. 54. 19	43. 36. 35
20		52. 6. 33	53. 48. 13	55. 29. 45	57. 11. 8
21		65. 35. 45	67. 16. 9	68. 56. 23	70. 36. 25
22		78. 53. 33	80. 32. 20	82. 10. 54	83. 49. 15
23		91. 57. 44	93. 34. 46	95. 11. 35	96. 48. 10
24		104. 47. 42	106. 22. 56	107. 57. 57	109. 32. 45
25		117. 23. 31	118. 57. 1	120. 30. 19	
23	Antares.	27. 50. 13	29. 28. 20	31. 6. 55	32. 45. 53
24		41. 2. 45	42. 42. 14	44. 21. 42	46. 1. 8
25		54. 17. 3	55. 55. 53	57. 34. 36	59. 13. 11
26		67. 23. 47	69. 1. 26	70. 38. 54	72. 16. 12
27	β Capri- corni.	25. 44. 51	27. 22. 24	28. 59. 45	30. 36. 55
28		38. 39. 52	40. 15. 53	41. 51. 43	43. 27. 22
29		51. 22. 45	52. 37. 16	54. 31. 36	56. 5. 46
30		63. 53. 50	65. 26. 56	66. 59. 51	68. 32. 35
O.		76. 13. 43			

S E P T E M B E R 1773. [107]

Distances of γ 's Center from Stars, and from \odot west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	β Capri- corni.	48. 58. 46	50. 34. 39	52. 10. 17	53. 45. 40
2		61. 38. 57	63. 12. 54	64. 46. 37	66. 20. 7
3		74. 4. 3	75. 36. 11	77. 8. 7	78. 39. 52
4	Fomal- haut.	57. 52. 33	59. 12. 25	60. 32. 27	61. 52. 37
5		68. 35. 13	69. 55. 58	71. 16. 46	72. 37. 36
6	α Pegasi.	63. 52. 4	65. 15. 19	66. 38. 39	68. 2. 5
7		75. 0. 35	76. 24. 33	77. 48. 35	79. 12. 42
8	α Arietis.	42. 37. 33	44. 2. 4	45. 26. 55	46. 52. 8
9		54. 2. 53	55. 29. 58	56. 57. 21	58. 25. 2
10	Aldeba- ran.	32. 0. 31	33. 32. 45	35. 5. 15	36. 38. 2
11		44. 26. 20	46. 0. 56	47. 35. 53	49. 11. 9
12		57. 12. 37	58. 49. 59	60. 27. 43	62. 5. 49
13	Pollux.	29. 0. 27	30. 32. 2	32. 4. 49	33. 38. 42
14		41. 40. 47	43. 19. 24	44. 58. 38	46. 38. 26
19	The Sun.	45. 18. 46	47. 0. 52	48. 42. 52	50. 24. 46
20		58. 52. 23	60. 33. 28	62. 14. 24	63. 55. 10
21		72. 16. 16	73. 55. 54	75. 35. 20	77. 14. 33
22		85. 27. 23	87. 5. 18	88. 43. 0	90. 20. 29
23		98. 24. 32	100. 0. 40	101. 36. 32	103. 12. 15
24		111. 7. 21	112. 41. 43	114. 15. 52	115. 49. 48
22	Antares.	21. 24. 20	22. 59. 38	24. 35. 46	26. 12. 40
23		34. 25. 5	36. 4. 21	37. 43. 44	39. 23. 13
24		47. 40. 31	49. 19. 48	50. 58. 59	52. 38. 5
25		60. 51. 37	62. 29. 54	64. 8. 1	65. 45. 59
26		73. 53. 18			
26	β Capri- corni.	19. 12. 37	20. 50. 59	22. 29. 9	24. 7. 6
27		32. 13. 53	33. 50. 40	35. 27. 15	37. 3. 39
28		45. 2. 49	46. 38. 5	48. 13. 10	49. 48. 3
29		57. 39. 45	59. 13. 32	60. 47. 9	62. 20. 35
30		70. 5. 9	71. 37. 33	73. 9. 47	74. 41. 50

[108] SEPTEMBER 1773.

Configurations of the SATELLITES of JUPITER at
9 o' th' Clock in the Evening.

1	1.0	.3	2.	⊙		4.
2	2.0		.3	1.	⊙	4.
3			4.	⊙	.1	.3
4		4.	1. 2.	⊙		.1
5		4.	.2	⊙	1.	3.
6	4.		.1	⊙	.2	3.⊙
7		3.		⊙	1. 2.	
8	4.	.3	2.	.1	⊙	
9	1.⊙	4.	.2	.2	⊙	
10		4.		⊙	.1	.3
11	4.0		1. 2.	⊙		.3
12		.2		⊙	.1	4.
13	3.⊙		.1	⊙	.2	4.
14		3.		⊙	1. 2.	4.
15		.3	2.	.1	⊙	
16	1.⊙		.3	.2	⊙	4.
17				⊙	.1	.3
18	2.⊙		1.	⊙		4.
19		.2		⊙	.1	4.
20			1. 2. 4.	⊙	.2	
21		4.	3.	⊙	1. 2.	
22	4.	.3	2.	.1	⊙	
23	4.		.3	.2	⊙	1.
24	4.			⊙	.3	2.
25	4.			1.	⊙	.2
26		4.	.2	⊙	.1	3.
27			.4	1.	⊙	.2
28			3.	⊙	.4	1. 2.
29		3.	.2.	⊙		4.
30		.3	.2	⊙	1.	4.

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.
			D. H. M. Last Quarter — 8. 10. 21 New Moon — 15. 14. 0 First Quarter — 22. 4. 41 Full Moon — 29. 23. 24
1	F.	Remigius.	
2	Sa.		
3	Su.	17th Sunday after Trinity.	D. Other Phenomena.
4	M.		2. ♀ α = diff. Lat. 48'.
5	Tu.		4. ♀ η = diff. Lat. 26'.
6	W.	Faith.	♄ γ δ 19 ^h . 37'.
7	Th.		♄ 1 ad ♄ γ 21 ^h . 47'.
8	F.		♄ 2 ad ♄ γ 22 ^h . 18'.
9	Sa.	S. Denys.	5. ♂ α = diff. Lat. 37'.
			♄ α δ 3 ^h . 42'.
10	Su.	18th Sunday after Trinity.	10. ♄ 2 ad α δ 9 ^h . 20'.
11	M.	[Oxf. and Cam. T. beg.]	11. ♄ ξ δ 0 ^h . 8'.
12	Tu.		♄ ο δ 4 ^h . 51'.
13	W.	Transf. of K. Ewd. Conf.	♄ π δ 13 ^h . 59'.
14	Th.		13. ♀ κ = diff. Lat. 59'.
15	F.		♄ τ δ 4 ^h . 46'.
16	Sa.		15. ♄ θ = 1 ^h . 11'.
			16. ♀ δ = diff. Lat. 51'.
17	Su.	19th Sunday after Trinity.	♄ κ = 3 ^h . 22'.
18	M.	St. Luke. [Etheldred.]	17. ♄ γ = 12 ^h . 19'.
19	Tu.		♄ η = 15 ^h . 54'.
20	W.		♄ θ = 19 ^h . 54'.
21	Th.		18. ♄ ε = Serpent. 10 ^h . 2'.
22	F.		22. ♄ β = 7 ^h . 0'.
23	Sa.		♄ enters ♄ at 14 ^h . 28'.
			24. ♂ κ = diff. Lat. 28'.
24	Su.	20th Sunday after Trinity.	♄ θ = 12 ^h . 6'.
25	M.	K. Geo. III. Acces. Crisp.	27. ♂ λ = diff. Lat. 37'.
26	Tu.	K. Geo. III. procl. 1760.	
27	W.		
28	Th.	St. Simon and St. Jude.	
29	F.		
30	Sa.		
31	Su.	21st Sunday after Trinity.	

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Days of the Month.	Days of the Week.	Sun's Longitude.			Sun's Right Asc. in Time.			Sun's Declin. South.			Equat. of Time Sub.		Diff.
		S.	D.	M. S.	H.	M.	S.	D.	M.	S.	M. S.	S.	
1	F.	6.	8.	34. 24	12.	31.	29, 7	3.	24.	12	10. 30, 4	18, 7	
2	Sa.	6.	9.	33. 32	12.	35.	7, 5	3.	47.	29	10. 49, 1	18, 4	
3	Su.	6.	10.	32. 41	12.	38.	45, 6	4.	10.	45	11. 7, 5	18, 1	
4	M.	6.	11.	31. 53	12.	42.	24, 1	4.	33.	57	11. 25, 6	17, 6	
5	Tu.	6.	12.	31. 7	12.	46.	2, 9	4.	57.	6	11. 43, 2	17, 3	
6	W.	6.	13.	30. 24	12.	49.	42, 2	5.	20.	11	12. 0, 5	16, 8	
7	Th.	6.	14.	29. 42	12.	53.	21, 8	5.	43.	13	12. 17, 3	16, 4	
8	F.	6.	15.	29. 4	12.	57.	2, 0	6.	6.	10	12. 33, 7	15, 9	
9	Sa.	6.	16.	28. 27	13.	0.	42, 7	6.	29.	2	12. 49, 6	15, 4	
10	Su.	6.	17.	27. 54	13.	4.	23, 6	6.	51.	50	13. 5, 0	15, 0	
11	M.	6.	18.	27. 22	13.	8.	5, 2	7.	14.	32	13. 20, 0	14, 5	
12	Tu.	6.	19.	26. 53	13.	11.	47, 3	7.	37.	8	13. 34, 5	13, 9	
13	W.	6.	20.	26. 26	13.	15.	29, 9	7.	59.	38	13. 48, 4	13, 3	
14	Th.	6.	21.	26. 1	13.	19.	13, 0	8.	22.	1	14. 1, 7	12, 8	
15	F.	6.	22.	25. 39	13.	22.	56, 8	8.	44.	18	14. 14, 5	12, 2	
16	Sa.	6.	23.	25. 19	13.	26.	41, 1	9.	6.	27	14. 25, 7	11, 6	
17	Su.	6.	24.	25. 0	13.	30.	26, 0	9.	28.	28	14. 38, 3	11, 1	
18	M.	6.	25.	24. 44	13.	34.	11, 5	9.	50.	21	14. 49, 4	10, 4	
19	Tu.	6.	26.	24. 29	13.	37.	57, 6	10.	12.	5	14. 59, 8	9, 8	
20	W.	6.	27.	24. 16	13.	41.	44, 3	10.	33.	40	15. 9, 6	9, 1	
21	Th.	6.	28.	24. 5	13.	45.	31, 7	10.	55.	5	15. 18, 7	8, 5	
22	F.	6.	29.	23. 56	13.	49.	19, 7	11.	16.	21	15. 27, 2	7, 9	
23	Sa.	7.	0.	23. 48	13.	53.	8, 4	11.	37.	26	15. 35, 1	7, 2	
24	Su.	7.	1.	23. 42	13.	56.	57, 8	11.	58.	21	15. 42, 3	6, 5	
25	M.	7.	2.	23. 37	14.	0.	47, 8	12.	19.	4	15. 48, 8	5, 7	
26	Tu.	7.	3.	23. 34	14.	4.	38, 6	12.	39.	36	15. 54, 5	5, 1	
27	W.	7.	4.	23. 33	14.	8.	30, 0	12.	59.	55	15. 59, 6	4, 3	
28	Th.	7.	5.	23. 33	14.	12.	22, 3	13.	20.	4	16. 3, 9	3, 6	
29	F.	7.	6.	23. 36	14.	16.	15, 2	13.	39.	59	16. 7, 5	2, 8	
30	Sa.	7.	7.	23. 39	14.	20.	9, 0	13.	59.	40	16. 10, 3	2, 0	
31	Su.	7.	8.	23. 45	14.	24.	3, 5	14.	19.	9	16. 12, 3		

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Days of the Month.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	16. 2. 9	1. 4. 3	2. 27. 8	9. 999911	6. 0. 56
7	16. 4. 6	1. 4. 6	2. 28. 4	9. 999172	6. 0. 37
13	16. 6. 2	1. 5. 0	2. 28. 9	9. 998442	6. 0. 18
19	16. 7. 9	1. 5. 6	2. 29. 3	9. 997709	5. 29. 59
25	16. 9. 5	1. 6. 2	2. 29. 8	9. 996980	5. 29. 40

Eclipses of the SATELLITES of J U P I T E R.

I. Satellite. Emerfions.		II. Satellite. Emerfions.		III. Satellite. Emerfions.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
2	8*48. 36	2	15*20. 49	4	22. 28. 46
4	3. 17. 46	6	4. 40. 48	12	2. 31. 13
5	21. 46. 59	9	18. 0. 35	19	6*33. 31
7	16*16. 9	13	7*20. 19	26	10*34. 25
9	10*45. 21	16	20. 39. 53	IV. Satellite.	
11	5. 14. 28	20	9*59. 20		
12	23. 43. 39	23	23. 18. 40	6	8*56. 50 I
14	18. 12. 43	27	12*37. 48	6	10*53. 28 E
16	12*41. 52	31	1. 56. 45	23	3. 23. 8 I
18	7*10. 54			23	5. 6. 2 E
20	1. 40. 0				
21	20. 8. 59				
23	14*37. 59				
25	9*6. 56				
27	3. 35. 54				
28	22. 4. 47				
30	16. 33. 39				

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Days.	Heliocen- tric Lon- gitude.	Heliocen- tric Lati- tude.	Geocen- tric Lon- gitude.	Geocen- tric La- titude.	Declina- tion.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

MERCURY. Sup. δ 18^a 14^b.

1	4. 13. 12	6. 59 N	5. 25. 35	1. 55 N	3. 31 N	23. 18
7	5. 12. 33	6. 15	6. 6. 4	1. 44	0. 49 S	23. 34
13	6. 6. 47	4. 25	6. 16. 32	1. 17	5. 19	23. 50
19	6. 27. 21	2. 13	6. 26. 42	0. 40	9. 41	0. 2
25	7. 15. 34	0. 2	7. 6. 31	0. 1	13. 41	0. 16

V E N U S.

1	8. 25. 39	0. 39 S	7. 9. 56	0. 21 S	15. 9 S	1. 58
7	9. 5. 8	1. 11	7. 17. 14	0. 39	17. 37	2. 5
13	9. 14. 37	1. 42	7. 24. 31	0. 57	19. 50	2. 12
19	9. 24. 6	2. 9	8. 1. 47	1. 15	21. 46	2. 20
25	10. 3. 35	2. 33	8. 9. 2	1. 32	23. 21	2. 28

M A R S.

1	7. 27. 37	0. 18 S	7. 8. 29	0. 12 S	14. 32 S	1. 53
7	8. 0. 47	0. 24	7. 12. 39	0. 16	15. 54	1. 47
13	8. 3. 58	0. 30	7. 16. 51	0. 20	17. 12	1. 42
19	8. 7. 11	0. 36	7. 21. 5	0. 23	18. 25	1. 36
25	8. 10. 26	0. 42	7. 25. 21	0. 27	19. 33	1. 31

J U P I T E R.

1	0. 4. 41	1. 19 S	0. 3. 42	1. 39 S	0. 2 S	11. 43
7	0. 5. 14	1. 19	0. 2. 55	1. 38	0. 20	11. 18
13	0. 5. 47	1. 19	0. 2. 10	1. 38	0. 38	10. 53
19	0. 6. 20	1. 19	0. 1. 29	1. 37	0. 54	10. 28
25	0. 6. 53	1. 19	0. 0. 52	1. 36	1. 8	10. 3

S A T U R N.

1	5. 17. 13	2. 4 N	5. 19. 14	1. 53 N	6. 0 N	22. 49
7	5. 17. 25	2. 4	5. 19. 57	1. 54	5. 43	22. 30
13	5. 17. 38	2. 5	5. 20. 39	1. 54	5. 27	22. 10
19	5. 17. 50	2. 5	5. 21. 20	1. 55	5. 12	21. 50
25	5. 18. 2	2. 5	5. 21. 58	1. 56	4. 58	21. 30

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Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midnight.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	F.	0. 16. 57. 9	0. 23. 1. 53	1. 24. 10 S	1. 56. 4 S
2	Sa.	0. 29. 4. 25	1. 5. 4. 56	2. 26. 29	2. 55. 8
3	Sa.	1. 11. 3. 42	1. 17. 1. 4	3. 21. 41	3. 45. 55
4	M.	1. 22. 57. 21	1. 28. 52. 48	4. 7. 36	4. 26. 40
5	Tu.	2. 4. 48. 1	2. 10. 43. 15	4. 42. 48	4. 55. 56
6	W.	2. 16. 39. 1	2. 22. 36. 0	5. 5. 54	5. 12. 38
7	Th.	2. 28. 34. 25	3. 4. 35. 2	5. 16. 0	5. 15. 57
8	F.	3. 10. 38. 18	3. 16. 44. 50	5. 12. 25	5. 5. 17
9	Sa.	3. 22. 55. 13	3. 29. 9. 59	4. 54. 38	4. 40. 19
10	Sa.	4. 5. 29. 37	4. 11. 54. 38	4. 22. 29	4. 1. 5
11	M.	4. 18. 25. 29	4. 25. 2. 29	3. 36. 18	3. 8. 15
12	Tu.	5. 1. 46. 0	5. 8. 36. 5	2. 37. 9	2. 3. 22
13	W.	5. 15. 32. 48	5. 22. 36. 2	1. 27. 12	0. 49. 7 S
14	Th.	5. 29. 45. 33	6. 7. 0. 49	0. 9. 49 S	0. 30. 12 N
15	F.	6. 14. 21. 6	6. 21. 45. 45	1. 10. 9 N	1. 49. 16
16	Sa.	6. 29. 13. 45	7. 6. 44. 4	2. 26. 46	3. 1. 54
17	Sa.	7. 14. 15. 26	7. 21. 46. 47	3. 33. 56	4. 2. 13
18	M.	7. 29. 16. 55	8. 6. 44. 51	4. 26. 17	4. 45. 38
19	Tu.	8. 14. 9. 32	8. 21. 30. 9	5. 0. 3	5. 9. 22
20	W.	8. 28. 46. 3	9. 5. 56. 48	5. 13. 37	5. 12. 53
21	Th.	9. 13. 1. 59	9. 20. 1. 28	5. 7. 22	4. 57. 20
22	F.	9. 26. 55. 13	10. 3. 43. 16	4. 43. 5	4. 25. 3
23	Sa.	10. 10. 25. 45	10. 17. 3. 24	4. 3. 35	3. 39. 8
24	Sa.	10. 23. 35. 17	11. 0. 2. 56	3. 12. 8	2. 42. 59
25	M.	11. 6. 26. 17	11. 12. 45. 44	2. 12. 7	1. 39. 56
26	Tu.	11. 19. 1. 35	11. 25. 14. 17	1. 6. 53 N	0. 33. 20 N
27	W.	0. 1. 24. 11	0. 7. 31. 28	0. 0. 20 S	0. 33. 42 S
28	Th.	0. 13. 36. 38	0. 19. 39. 48	1. 6. 30	1. 38. 18
29	F.	0. 25. 41. 21	1. 1. 41. 21	2. 8. 49	2. 37. 47
30	Sa.	1. 7. 40. 8	1. 13. 37. 50	3. 4. 50	3. 29. 44
31	Sa.	1. 10. 34. 41	1. 20. 30. 53	3. 52. 17	4. 12. 16

Days of the Month.	Days of the Week.	D's Age.	D's Pass- age over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's De- clination at Noon.	D's De- clination at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	F.	16	12. 56	16. 10	22. 2	5. 22 N	7. 10 N
2	Sa.	17	13. 41	27. 54	33. 47	8. 52	10. 29
3	Su.	18	14. 27	39. 42	45. 39	11. 58	13. 19
4	M.	19	15. 12	51. 38	57. 40	14. 32	15. 35
5	Tu.	20	15. 59	63. 44	69. 52	16. 29	17. 12
6	W.	21	16. 47	76. 2	82. 15	17. 43	18. 3
7	Th.	22	17. 35	88. 30	94. 48	18. 11	18. 7
8	F.	23	18. 24	101. 8	107. 30	17. 51	17. 22
9	Sa.	24	19. 13	113. 53	120. 19	16. 40	15. 46
10	Su.	25	20. 3	126. 46	133. 14	14. 40	13. 23
11	M.	26	20. 53	139. 44	146. 16	11. 54	10. 14
12	Tu.	27	21. 44	152. 50	159. 27	8. 25	6. 27
13	W.	28	22. 37	166. 8	172. 53	4. 22 N	2. 11 N
14	Th.	29	23. 31	179. 43	186. 38	0. 3 S	2. 20 S
15	F.	1	0	193. 40	200. 48	4. 35	6. 48
16	Sa.	2	0. 26	208. 3	215. 25	8. 56	10. 55
17	Su.	3	1. 24	222. 53	230. 26	12. 44	14. 20
18	M.	4	2. 24	238. 4	245. 44	15. 41	16. 46
19	Tu.	5	3. 24	253. 26	261. 6	17. 33	18. 3
20	W.	6	4. 23	268. 43	276. 14	18. 14	18. 7
21	Th.	7	5. 21	283. 38	290. 54	17. 44	17. 4
22	F.	8	6. 16	298. 1	304. 58	16. 10	15. 3
23	Sa.	9	7. 8	311. 45	318. 23	13. 44	12. 16
24	Su.	10	7. 58	324. 51	331. 10	10. 39	8. 55
25	M.	11	8. 45	337. 23	343. 28	7. 7	5. 14
26	Tu.	12	9. 30	349. 29	355. 25	3. 19 S	1. 23 S
27	W.	13	10. 15	1. 18	7. 8	0. 33 N	2. 28 N
28	Th.	14	10. 59	12. 57	18. 46	4. 21	6. 11
29	F.	15	11. 43	24. 36	30. 27	7. 56	9. 36
30	Sa.	16	12. 28	36. 19	42. 14	11. 10	12. 37
31	Su.	17	13. 13	48. 12	54. 13	13. 55	15. 4

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Days of the Month.	Days of the Week.	Semid. γ at Noon.	Semid. γ at Mid-night.	Hor. Par. γ at Noon.	Hor. Par. γ at Midnight.	Sun. at Noon.	Proport. Lo- gar. at Noon.	Proport. Lo- gar. at Midn.
1	F.	14. 59	14. 56	55. 1	54. 50	5148	5162	
2	Sa.	14. 54	14. 52	54. 41	54. 33	5174	5185	
3	Su.	14. 50	14. 48	54. 26	54. 20	5194	5202	
4	M.	14. 47	14. 47	54. 16	54. 14	5207	5210	
5	Tu.	14. 47	14. 47	54. 14	54. 16	5210	5207	
6	W.	14. 49	14. 50	54. 21	54. 28	5201	5191	
7	Th.	14. 53	14. 56	54. 37	54. 49	5179	5163	
8	F.	15. 0	15. 5	55. 3	55. 20	5145	5123	
9	Sa.	15. 10	15. 16	55. 38	56. 0	5099	5071	
10	Su.	15. 22	15. 29	56. 23	56. 48	5041	5009	
11	M.	15. 36	15. 43	57. 15	57. 42	4975	4941	
12	Tu.	15. 51	15. 58	58. 10	58. 37	4906	4872	
13	W.	16. 6	16. 13	59. 5	59. 30	4838	4808	
14	Th.	16. 19	16. 25	59. 54	60. 15	4778	4753	
15	F.	16. 30	16. 34	60. 33	60. 47	4732	4715	
16	Sa.	16. 37	16. 38	60. 57	61. 2	4703	4697	
17	Su.	16. 38	16. 37	61. 4	61. 0	4694	4699	
18	M.	16. 36	16. 33	60. 55	60. 45	4705	4717	
19	Tu.	16. 29	16. 24	60. 29	60. 11	4736	4758	
20	W.	16. 19	16. 13	59. 52	59. 31	4781	4806	
21	Th.	16. 7	16. 1	59. 9	58. 46	4833	4861	
22	F.	15. 55	15. 49	58. 24	58. 1	4889	4917	
23	Sa.	15. 43	15. 37	57. 39	57. 17	4945	4972	
24	Su.	15. 31	15. 26	56. 57	56. 37	4998	5023	
25	M.	15. 21	15. 16	56. 19	56. 1	5046	5069	
26	Tu.	15. 11	15. 8	55. 45	55. 31	5090	5108	
27	W.	15. 4	15. 1	55. 17	55. 5	5127	5142	
28	Th.	14. 57	14. 55	54. 53	54. 43	5158	5171	
29	F.	14. 52	14. 50	54. 34	54. 27	5183	5193	
30	Sa.	14. 48	14. 47	54. 20	54. 15	5202	5209	
31	Su.	14. 46	14. 45	54. 11	54. 7	5214	5219	

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Distances of γ 's Center from Stars, and from \odot east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Aldebaran.	49. 44. 25	48. 12. 42	46. 41. 8	45. 9. 44
2		37. 35. 2	36. 4. 32	34. 34. 10	33. 3. 56
3		25. 34. 45	24. 5. 16	22. 35. 53	21. 6. 37
4		13. 41. 41			
4	Pollux.	58. 3. 12	56. 37. 0	55. 10. 56	53. 45. 0
5		46. 37. 33	45. 12. 34	43. 47. 47	42. 23. 13
6		35. 23. 53			
6	Regulus.	70. 9. 32	68. 40. 54	67. 12. 13	65. 43. 30
7		58. 18. 37	56. 49. 18	55. 19. 50	53. 59. 14
8		46. 19. 52	44. 49. 15	43. 18. 26	41. 47. 24
6	The Sun.	116. 44. 29	115. 23. 6	114. 1. 38	112. 40. 6
7		105. 51. 9	104. 29. 0	103. 6. 43	101. 44. 16
8		94. 49. 33	93. 26. 2	92. 2. 17	90. 38. 19
9		83. 34. 39	82. 9. 7	80. 43. 16	79. 17. 7
10		72. 1. 33	70. 33. 25	69. 4. 54	67. 36. 1
11		60. 5. 49	58. 34. 35	57. 2. 56	55. 30. 52
12		47. 44. 8	46. 9. 36	44. 34. 27	42. 58. 58
17	α Aquilæ.	74. 35. 55	72. 54. 14	71. 12. 46	69. 31. 36
18		61. 12. 6	59. 33. 45	57. 56. 7	56. 19. 14
19		48. 27. 58			
19	β Capricorni.	46. 33. 28	44. 43. 17	42. 53. 23	41. 3. 47
20		32. 0. 21	30. 12. 37	28. 25. 12	26. 38. 8
21		17. 47. 55			
21	α Pegasi.	66. 55. 1	65. 16. 26	63. 38. 20	62. 0. 45
22		54. 1. 16	52. 27. 11	50. 53. 47	49. 21. 7
23		41. 49. 43	40. 22. 10	38. 55. 41	37. 30. 19
24		30. 44. 43			
24	α Arietis.	70. 39. 42	69. 5. 0	67. 30. 36	65. 56. 32
25		58. 11. 1	56. 38. 53	55. 7. 5	53. 35. 39
26		46. 3. 58	44. 34. 49	43. 6. 6	41. 37. 50
27	Aldebaran.	65. 21. 7	63. 48. 42	62. 16. 26	60. 44. 19
28		53. 5. 47	51. 34. 30	50. 3. 21	48. 32. 19
29		40. 58. 50	39. 28. 29	37. 58. 15	36. 28. 6
30		28. 58. 50	27. 29. 15	25. 59. 46	24. 30. 21
31		17. 4. 29			
31	Pollux.	61. 19. 44	59. 53. 3	58. 26. 31	57. 0. 7
N.1		49. 50. 9			

OCTOBER 1773.

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Distances of β 's Center from Stars, and from \odot east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Aldebaran.	43. 38. 30	42. 7. 25	40. 36. 28	39. 5. 41
2		31. 33. 51	30. 3. 53	28. 34. 3	27. 4. 20
3		19. 37. 27	18. 8. 22	16. 39. 23	15. 10. 20
4	Pollux.	52. 19. 12	50. 53. 32	49. 28. 3	48. 2. 43
5		40. 58. 51	39. 34. 43	38. 10. 51	36. 47. 14
6	Regulus.	64. 14. 42	62. 45. 50	61. 16. 52	59. 47. 48
7		52. 20. 29	50. 50. 36	49. 20. 31	47. 50. 17
8		40. 16. 10			
5	The Sun.		120. 48. 18	119. 27. 5	118. 5. 49
6		111. 18. 29	109. 56. 48	108. 35. 2	107. 13. 9
7		100. 21. 41	98. 58. 56	97. 36. 0	96. 12. 52
8		89. 14. 7	87. 49. 39	86. 24. 55	84. 59. 55
9		77. 50. 40	76. 23. 54	74. 56. 47	73. 29. 20
10		66. 6. 46	64. 37. 7	63. 7. 5	61. 36. 39
11		53. 58. 23	52. 25. 27	50. 52. 6	49. 18. 20
12		41. 23. 4	39. 46. 44		
17	α Aquilæ.	67. 50. 48	66. 10. 22	64. 30. 26	62. 51. 1
18		54. 43. 6	53. 7. 51	51. 33. 32	50. 0. 13
19	β Capricorni.	39. 14. 29	37. 25. 29	35. 36. 47	33. 48. 25
20		24. 51. 24	23. 5. 0	21. 18. 57	19. 33. 16
21	α Pegasi.	60. 23. 42	58. 47. 12	57. 11. 17	55. 35. 58
22		47. 49. 11	46. 18. 2	44. 47. 43	43. 18. 15
23		36. 6. 13	34. 43. 28	33. 22. 13	32. 2. 35
24	α Arietis.	64. 22. 47	62. 49. 21	61. 16. 15	59. 43. 28
25		52. 4. 34	50. 33. 50	49. 3. 29	47. 33. 32
26		40. 10. 1			
26	Aldebaran.	71. 32. 28	69. 59. 22	68. 26. 27	66. 53. 42
27		59. 12. 21	57. 40. 30	56. 8. 48	54. 37. 13
28		47. 1. 24	45. 30. 35	43. 59. 54	42. 29. 18
29		34. 58. 4	33. 28. 7	31. 58. 16	30. 28. 30
30	Pollux.	23. 1. 1	21. 31. 46	20. 2. 36	18. 33. 30
31		55. 33. 50	54. 7. 42	52. 41. 43	51. 15. 52

Distances of ♄'s Center from Stars, and from ☉ west of her.

Days	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Fomalhaut.	49. 11. 50	50. 29. 50	51. 48. 13	53. 6. 57
2		59. 44. 57			
2	α Pegasi.	43. 52. 11	45. 13. 10	46. 34. 27	47. 56. 0
3		54. 47. 16	56. 10. 2	57. 32. 55	58. 55. 55
4		65. 52. 16	67. 15. 43	68. 39. 14	70. 2. 48
5		77. 1. 27			
5	α Arietis.	33. 33. 22	34. 54. 46	36. 16. 39	37. 38. 58
6		44. 36. 1	46. 0. 24	47. 25. 3	48. 49. 58
7	Aldebaran.	21. 50. 40	23. 20. 10	24. 49. 50	26. 19. 39
8		33. 51. 16	35. 22. 11	36. 53. 20	38. 24. 43
9		46. 5. 23	47. 38. 21	49. 11. 37	50. 45. 11
10		58. 37. 54	60. 13. 29	61. 49. 26	63. 25. 45
11		71. 33. 11			
11	Pollux.	30. 5. 7	31. 35. 50	33. 7. 36	34. 40. 21
12		42. 37. 6	44. 14. 43	45. 53. 0	47. 31. 57
13		55. 55. 50			
13	Regulus.	18. 57. 27	20. 41. 23	22. 25. 58	24. 11. 10
14		33. 4. 52	34. 52. 59	36. 41. 30	38. 30. 25
18	The Sun.				39. 20. 8
19		47. 56. 55	49. 39. 31	51. 21. 51	53. 3. 54
20		61. 29. 35	63. 9. 46	64. 49. 38	66. 29. 9
21		74. 41. 40	76. 19. 8	77. 56. 16	79. 33. 2
22		87. 31. 48	89. 6. 31	90. 40. 55	92. 14. 59
23		100. 0. 25	101. 32. 35	103. 4. 26	104. 36. 0
24		112. 9. 23	113. 39. 14	115. 8. 40	116. 38. 8
22	Antares.	51. 6. 29	52. 46. 36	54. 26. 29	56. 6. 7
23		64. 20. 33	65. 58. 41	67. 36. 34	69. 14. 12
24	β Capri corni.	22. 41. 21	24. 18. 48	25. 55. 58	27. 32. 54
25		35. 33. 48	37. 9. 17	38. 44. 32	40. 19. 35
26		48. 11. 35			
26	α Aquila.	55. 37. 3	56. 58. 16	58. 19. 41	59. 41. 18
27		66. 31. 48	67. 54. 14	69. 16. 44	70. 39. 17
28		77. 32. 26	78. 55. 1	80. 17. 35	81. 40. 5
29		88. 31. 52			
29	α Pegasi.	40. 51. 39	42. 11. 13	43. 31. 13	44. 51. 39
30		51. 38. 53	53. 1. 6	54. 23. 30	55. 46. 5
31		62. 41. 8	64. 4. 28	65. 27. 53	66. 51. 22
N. 1		73. 49. 44			

OCTOBER 1773.

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Distances of γ 's Center from Stars, and from \odot west of her.

Dys.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Fomalh.	54. 26. 1	55. 45. 24	57. 5. 7	58. 24. 52
2		49. 17. 50	50. 39. 54	52. 2. 10	53. 24. 37
3	α Pegasi.	60. 19. 2	61. 42. 14	63. 5. 30	64. 28. 51
4		71. 26. 26	72. 50. 7	74. 13. 50	75. 37. 37
5	α Arietis.	39. 1. 42	40. 24. 47	41. 48. 12	43. 11. 57
6		50. 15. 6			
6		15. 54. 0	17. 22. 58	18. 52. 4	20. 21. 18
7	Aldebaran.	27. 49. 37	29. 19. 45	30. 50. 3	32. 20. 34
8		39. 56. 19	41. 28. 10	43. 0. 18	44. 32. 42
9		52. 19. 4	53. 53. 16	55. 27. 48	57. 2. 41
10		65. 2. 27	66. 39. 32	68. 17. 1	69. 54. 54
11	Pollux.	36. 14. 3	37. 48. 37	39. 24. 1	41. 0. 11
12		49. 11. 33	50. 51. 46	52. 32. 33	54. 13. 55
13	Regulus.	25. 56. 55	27. 43. 12	29. 29. 58	31. 17. 12
14		40. 19. 43			
18		41. 3. 57	42. 47. 33	44. 30. 55	46. 14. 2
19		54. 45. 39	56. 27. 6	58. 8. 14	59. 49. 4
20		68. 8. 21	69. 47. 11	71. 25. 41	73. 3. 51
21	The Sun.	81. 9. 29	82. 45. 34	84. 21. 19	85. 56. 44
22		93. 48. 43	95. 22. 7	96. 55. 12	98. 27. 58
23		106. 7. 16	107. 38. 13	109. 8. 53	110. 39. 17
24		118. 7. 12	119. 36. 0	121. 4. 34	
22	Antares.	57. 45. 30	59. 24. 38	61. 3. 31	62. 42. 10
23		70. 51. 34			
23	β Capricorni.	16. 8. 52	17. 47. 24	19. 25. 39	21. 3. 38
24		29. 9. 34	30. 45. 59	32. 22. 9	33. 58. 6
25		41. 54. 24	43. 29. 1	45. 3. 25	46. 37. 36
26		61. 3. 7	62. 25. 6	63. 47. 12	65. 9. 26
27	α Aquilæ.	72. 1. 54	73. 24. 32	74. 47. 10	76. 9. 48
28		83. 2. 34	84. 24. 59	85. 47. 21	87. 9. 38
29		46. 12. 28	47. 33. 39	48. 55. 8	50. 16. 53
30	α Pegasi.	57. 8. 50	58. 31. 43	59. 54. 44	61. 17. 53
31		68. 14. 56	69. 38. 34	71. 2. 14	72. 25. 58

[120] OCTOBER 1773.

Configurations of the SATELLITES of JUPITER
at 8 o' th' Clock in the Evening.

1	3.0			.1	○		.2			.4
2	1.0				○	2.		.3		4.
3			2.		○	.1		3.		4.
4	2.0			1.	○		3.		4.	
5				3.	○		.7	2.4		
6	4.0		3.		.1	2.	○			
7			.3	4.	.2		○	1.		
8		4.	7.		.1.1		○	.2		
9	4.						○	1. 2.	.3	
10	4.		2.				○	.1		1.
11	4.				1.	.2	○		5.	
12		.4			3.		○	.1	2.	
13			3.		1.	2.	○			
14			.3	.2	.4		○	1.		
15					.1	.3	○	.2.4		
16							○	1. 2.	.3	.4
17	1.0			2.			○		.3	.4
18					1.	.2	○		3.	
19					3.		○	.1	.2	4.
20	2.0		1.		1.		○			4.
21			.3	.2			○	1.		4.
22					.1.3		○	.4		
23					4.		○	1. 2.	.3	
24		4.		2.		.1	○			1
25	1.0	4.			.2		○		3.	
26	4.						○	.1	.2	3.
27			3.		1.		○	.2		
28		.4		.3	.2		○		.1	
29			.4		.3.2		○	.2		
30					.4		○	1. 2.	.3	
31	4.0			2.		.1	○		.3	

NOVEMBER 1773. [121]

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.	
			D.H.M.	
			Last Quarter —	7. 3. 9
			New Moon —	13. 23. 59
			First Quarter —	20. 16. 31
			Full Moon —	28. 18. 10
1	M.	<i>All Saints.</i>	Other Phenomena.	
2	Tu.			
3	W.	On mor. of All Souls, 1 D.		
4	Th.	[ret.]		
5	F.	<i>Powder Plot, 1605.</i>		
6	Sa.	Mich. Term. begins.		
7	Su.	<i>22d Su. aft. Tr. D. of Cumb.</i>	1. ☾ 7° 23'. 25'. ☾ 1 ad ☽ 8° 43'. 35'. ☾ 2 ad ☽ 5°. 6'. ☾ ☽ Im. 9°. 12'. * 6½' S. of ☽'s cent. Em. 10°. 11'. * 8' S. ♀ θ Ophiu. diff. Lat. 2'. 6. ☾ 2 ad ☽ 17°. 29'. 7. ☾ ☽ Im. 11°. 41½'. * 6½' N. of ☽'s cent. Em. 12°. 34½'. * 3' N. ☾ π 23°. 0'. 8. ♀ ♀ Im. diff. Lat. 25'. 9. ☾ 7° 14°. 55'. 11. ☾ θ Im. 12°. 15'. 12. ☾ ☽ Im. 14°. 35'. 14. ♀ λ 7 diff. Lat. 8'. 17. ☽ θ 2 diff. Lat. 10. 32'. 18. ☾ β 14°. 14'. 20. ☾ θ 18°. 11'. 21. ☾ enters ♄ at 10°. 35'. ♀ θ Ophiu. diff. Lat. 32'. 23. ☾ 1°. 46'. 24. ☾ Stationary. 26. ♀ B Ophiuchi diff. Lat. 10'. 28. ☾ 7° 8°. 31'. ☾ 1 ad ☽ 10°. 41'. ☾ 2 ad ☽ 11°. 12'. ☾ ☽ 16°. 34', at 17°. 57' * will appear in Contact with ☽'s S. Limb.	
8	M.	<i>Prs. Aug. Soph. born. [born.]</i>		
9	Tu.			
10	W.			
11	Th.	St. Martin.		
12	F.	On mor. of St. Martin,		
13	Sa.	Britius. [2 ret.]		
14	Su.	<i>23d Sunday after Trinity.</i>		
15	M.	Machutus.		
16	Tu.			
17	W.	Hugh Bp. of Lincoln.		
18	Th.	In 8 days of St. Martin,		
19	F.	[3 ret.]		
20	Sa.			
21	Su.	<i>24th Su. aft. Tr. Edm. K.</i>		
22	M.	Cecilia. [and Mart.]		
23	Tu.	St. Clement.		
24	W.			
25	Th.	<i>D. of Glo. bo. In 15 days</i>		
26	F.	[of St. Martin, 4 ret.]		
27	Sa.			
28	Su.	<i>Advent Sunday.</i>		
29	M.	Mich. Term ends.		
30	Tu.	St. Andrew. Prs. Dow. of [Wales born.]		

[122] NOVEMBER 1773.

Days of the Month.	Days of the Week.	Sun's Longitude.	Sun's Right Asc. in Time.	Sun's Declin. South.	Equat. of Time. Sub.	Diff.
		S. D. M. S.	H. M. S.	D. M. S.	M. S.	S.
1	M.	7. 9. 23. 53	14. 27. 58, 9	14. 38. 24	16. 13, 5	0, 4
2	Tu.	7. 10. 24. 3	14. 31. 55, 0	14. 57. 24	16. 13, 9	0, 4
3	W.	7. 11. 24. 15	14. 35. 52, 0	15. 16. 10	16. 13, 5	1, 3
4	Th.	7. 12. 24. 28	14. 39. 49, 8	15. 34. 41	16. 12, 2	2, 1
5	F.	7. 13. 24. 44	14. 43. 48, 5	15. 52. 57	16. 10, 1	2, 9
6	Sa.	7. 14. 25. 2	14. 47. 48, 0	16. 10. 57	16. 7, 2	3, 8
7	Su.	7. 15. 25. 22	14. 51. 48, 4	16. 28. 40	16. 3, 4	4, 7
8	M.	7. 16. 25. 45	14. 55. 49, 7	16. 46. 8	15. 58, 7	5, 6
9	Tu.	7. 17. 26. 9	14. 59. 51, 8	17. 3. 18	15. 53, 1	6, 5
10	W.	7. 18. 26. 35	15. 3. 54, 8	17. 20. 10	15. 46, 6	7, 3
11	Th.	7. 19. 27. 4	15. 7. 58, 7	17. 36. 45	15. 39, 3	8, 1
12	F.	7. 20. 27. 34	15. 12. 3, 4	17. 53. 2	15. 31, 2	9, 0
13	Sa.	7. 21. 28. 5	15. 15. 9, 0	18. 8. 59	15. 22, 2	9, 9
14	Su.	7. 22. 28. 39	15. 20. 15, 4	18. 24. 38	15. 12, 3	10, 7
15	M.	7. 23. 29. 14	15. 24. 22, 7	18. 39. 57	15. 1, 6	11, 6
16	Tu.	7. 24. 29. 51	15. 28. 30, 9	18. 54. 56	14. 50, 0	12, 4
17	W.	7. 25. 30. 29	15. 32. 39, 9	19. 9. 35	14. 37, 6	13, 2
18	Th.	7. 26. 31. 9	15. 36. 49, 7	19. 23. 54	14. 24, 4	14, 0
19	F.	7. 27. 31. 49	15. 41. 0, 2	19. 37. 51	14. 10, 4	14, 8
20	Sa.	7. 28. 32. 31	15. 45. 11, 6	19. 51. 27	13. 55, 6	15, 5
21	Su.	7. 29. 33. 13	15. 49. 23, 8	20. 4. 41	13. 40, 1	16, 3
22	M.	8. 0. 33. 57	15. 53. 36, 8	20. 17. 32	13. 23, 8	17, 2
23	Tu.	8. 1. 34. 42	15. 57. 50, 5	20. 30. 1	13. 6, 6	17, 9
24	W.	8. 2. 35. 28	16. 2. 4, 9	20. 42. 7	12. 48, 7	18, 6
25	Th.	8. 3. 36. 15	16. 6. 20, 1	20. 53. 50	12. 30, 1	19, 2
26	F.	8. 4. 37. 2	16. 10. 36, 0	21. 5. 9	12. 10, 9	20, 0
27	Sa.	8. 5. 37. 51	16. 14. 52, 6	21. 16. 5	11. 50, 9	20, 8
28	Su.	8. 6. 38. 41	16. 19. 9, 6	21. 26. 36	11. 30, 1	21, 4
29	M.	8. 7. 39. 32	16. 23. 28, 0	21. 36. 43	11. 8, 7	22, 1
30	Tu.	8. 8. 40. 25	16. 27. 46, 7	21. 46. 25	10. 46, 6	22, 7

N O V E M B E R 1773. [123]					
Days.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	16. 11, 2	1. 6, 9	2. 30, 4	9. 996181	5. 29. 18
7	16. 12, 7	1. 7, 6	2. 30, 8	9. 995563	5. 28. 58
13	16. 14, 0	1. 8, 3	2. 31, 3	9. 994991	5. 28. 39
19	16. 15, 1	1. 9, 0	2. 31, 7	9. 994447	5. 28. 20
25	16. 16, 2	1. 9, 7	2. 32, 1	9. 993953	5. 28. 1

Eclipses of the SATELLITES of J U P I T E R.

I. Satellite. Emerfions.		II. Satellite. Emerfions.		III. Satellite.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
1	11* 2. 30	3	15. 15. 54	2	12* 10. 43 I
3	5. 31. 22	7	4. 34. 28	2	14* 37. 5 E
5	0. 0. 9	10	17. 52. 49	9	16. 12. 59 I
6	18. 28. 54	14	7* 11. 0	9	18. 37. 55 E
8	12* 57. 38	17	20. 28. 55	16	20. 14. 42 I
10	7* 26. 19	21	9* 46. 37	16	22. 38. 11 E
12	1. 54. 57	24	23. 4. 10	24	0. 15. 45 I
13	20. 23. 33	28	12* 21. 35	24	2. 37. 48 E
15	14. 52. 6			IV. Satellite.	
17	9* 20. 36			8	21. 49. 35 I
19	3. 49. 4			8	23. 15. 28 E
20	22. 17. 30			25	16. 14. 46 I
22	16. 45. 53			25	17. 19. 9 E
24	11* 14. 14				
26	5* 42. 36				
28	0. 10. 53				
29	18. 39. 10				

[124] NOVEMBER 1773.

Days.	Heliocen- tric Lon- gitude.	Heliocen- tric Lati- tude.	Geocen- tric Lon- gitude.	Geocen- tric La- titude.	Declina- tion.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

MERCURY.

1	8. 5. 16	2. 20 S	7. 17. 35	0. 46 S	17. 50 S	0. 32
7	8. 21. 45	4. 7	7. 26. 50	1. 23	20. 49	0. 45
13	9. 8. 40	5. 35	8. 5. 52	1. 54	23. 11	0. 58
19	9. 26. 47	6. 37	8. 14. 39	2. 16	24. 50	1. 11
25	10. 17. 5	6. 59	8. 23. 2	2. 26	25. 43	1. 23

VENUS.

1	10. 14. 39	2. 56 S	8. 17. 28	1. 49 S	24. 41 S	2. 37
7	10. 24. 9	3. 11	8. 24. 40	2. 2	25. 23	2. 45
13	11. 3. 39	3. 20	9. 1. 51	2. 12	25. 40	2. 52
19	11. 13. 10	3. 23	9. 8. 59	2. 20	25. 29	2. 59
25	11. 22. 42	3. 21	9. 16. 4	2. 24	24. 53	3. 5

MARS.

1	8. 14. 17	0. 49 S	8. 0. 23	0. 31 S	20. 45 S	1. 25
7	8. 17. 37	0. 55	8. 4. 45	0. 34	21. 40	1. 19
13	8. 20. 58	1. 0	8. 9. 9	0. 37	22. 27	1. 13
19	8. 24. 22	1. 6	8. 13. 35	0. 40	23. 7	1. 7
25	8. 27. 48	1. 11	8. 18. 3	0. 43	23. 38	1. 1

JUPITER.

1	0. 7. 32	1. 19 S	0. 0. 16	1. 35 S	1. 20 S	9. 34
7	0. 8. 5	1. 19	11. 29. 52	1. 33	1. 28	9. 9
13	0. 8. 38	1. 19	11. 29. 34	1. 32	1. 34	8. 43
19	0. 9. 11	1. 19	11. 29. 25	1. 30	1. 36	8. 18
25	0. 9. 44	1. 19	11. 29. 23	1. 28	1. 36	7. 53

SATURN.

1	5. 18. 17	2. 6 N	5. 22. 41	1. 57 N	4. 42 N	21. 5
7	5. 18. 29	2. 6	5. 23. 16	1. 59	4. 30	20. 43
13	5. 18. 42	2. 6	5. 23. 48	2. 0	4. 18	20. 21
19	5. 18. 54	2. 7	5. 24. 17	2. 1	4. 8	19. 58
25	5. 19. 6	2. 7	5. 24. 44	2. 3	3. 59	19. 34

NOVEMBER 1773. [125]

Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midn.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	M.	2. 1. 26. 37	2. 7. 22. 13	4. 29. 25 S	4. 43. 44 S
2	Tu.	2. 13. 17. 42	2. 19. 13. 35	4. 54. 55	5. 2. 57
3	W.	2. 25. 10. 1	3. 1. 7. 27	5. 7. 43	5. 9. 9
4	Th.	3. 7. 6. 15	3. 13. 6. 49	5. 7. 15	5. 1. 57
5	F.	3. 19. 9. 39	3. 25. 15. 12	4. 53. 15	4. 41. 10
6	Sa.	4. 1. 23. 57	4. 7. 36. 32	4. 25. 47	4. 7. 4
7	Sa.	4. 13. 53. 22	4. 20. 15. 5	3. 45. 11	3. 20. 15
8	M.	4. 26. 42. 13	5. 3. 15. 15	2. 52. 28	2. 21. 56
9	Tu.	5. 9. 54. 35	5. 16. 40. 41	1. 49. 5	1. 14. 9 S
10	W.	5. 23. 53. 45	6. 0. 33. 59	0. 37. 32 S	0. 0. 13 N
11	Th.	6. 7. 41. 20	6. 14. 55. 40	0. 38. 34 N	1. 16. 53
12	F.	6. 22. 16. 34	6. 29. 43. 20	1. 54. 27	2. 30. 33
13	Sa.	7. 7. 15. 6	7. 14. 50. 53	3. 4. 21	3. 35. 10
14	Sa.	7. 22. 29. 21	8. 0. 9. 7	4. 2. 16	4. 25. 4
15	M.	8. 7. 48. 44	8. 15. 26. 41	4. 43. 4	4. 55. 54
16	Tu.	8. 23. 1. 37	9. 0. 32. 23	5. 3. 26	5. 5. 39
17	W.	9. 7. 57. 50	9. 15. 17. 12	5. 2. 41	4. 54. 44
18	Th.	9. 22. 29. 49	9. 29. 35. 23	4. 42. 13	4. 25. 31
19	F.	10. 6. 33. 42	10. 13. 24. 50	4. 5. 4	3. 41. 28
20	Sa.	10. 20. 8. 59	10. 26. 5. 24	3. 15. 7	2. 46. 36
21	Sa.	11. 3. 17. 36	11. 9. 42. 59	2. 16. 17	1. 44. 42
22	M.	11. 16. 3. 7	11. 22. 18. 36	1. 12. 16	0. 39. 19 N
23	Tu.	11. 28. 29. 56	0. 4. 37. 44	0. 6. 20 N	0. 26. 22 S
24	W.	0. 10. 42. 32	0. 16. 44. 52	0. 58. 31 S	1. 29. 43
25	Th.	0. 22. 45. 7	0. 28. 43. 49	1. 59. 41	2. 28. 11
26	F.	1. 4. 41. 18	1. 10. 37. 57	2. 54. 54	3. 19. 37
27	Sa.	1. 16. 34. 1	1. 22. 29. 52	3. 42. 4	4. 2. 5
28	Sa.	1. 28. 25. 38	2. 4. 21. 34	4. 19. 25	4. 33. 56
29	M.	2. 10. 17. 50	2. 16. 14. 32	4. 45. 29	4. 53. 54
30	Tu.	2. 22. 11. 47	2. 28. 9. 56	4. 59. 7	5. 1. 4

[126] NOVEMBER 1773.							
Days of the Month.	Days of the Week.	D's Age.	D's Pass- age over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's De- clination at Noon.	D's De- clination at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	M.	18	13. 59	60. 16	66. 23	16. 5 N	16. 54 N
2	Tu.	19	14. 46	72. 31	78. 43	17. 32	18. 0
3	W.	20	15. 34	84. 56	91. 11	18. 15	18. 19
4	Th.	21	16. 21	97. 27	103. 44	18. 10	17. 49
5	F.	22	17. 9	110. 1	116. 19	17. 16	16. 30
6	Sa.	23	17. 58	122. 37	128. 56	15. 33	14. 24
7	Su.	24	18. 47	135. 15	141. 35	13. 5	11. 35
8	M.	25	19. 34	147. 57	154. 20	9. 56	8. 7
9	Tu.	26	20. 24	160. 46	167. 16	6. 11	4. 8 N
10	W.	27	21. 16	173. 51	180. 31	1. 59 N	0. 13 S
11	Th.	28	22. 9	187. 19	194. 15	2. 28 S	4. 42
12	F.	29	23. 5	201. 19	208. 32	6. 55	9. 2
13	Sa.	1	♂	215. 55	223. 28	11. 2	12. 53
14	Su.	2	0. 4	231. 8	238. 56	14. 31	15. 53
15	M.	3	1. 5	246. 49	254. 45	16. 59	17. 46
16	Tu.	4	2. 7	262. 41	270. 34	18. 14	18. 22
17	W.	5	3. 8	278. 21	286. 0	18. 11	17. 42
18	Th.	6	4. 6	293. 30	300. 48	16. 57	15. 56
19	F.	7	5. 1	307. 54	314. 48	14. 42	13. 16
20	Sa.	8	5. 53	321. 31	328. 2	11. 42	10. 0
21	Su.	9	6. 41	334. 24	340. 37	8. 11	6. 19
22	M.	10	7. 27	346. 42	352. 41	4. 24	2. 29 S
23	Tu.	11	8. 11	358. 35	4. 26	0. 31 S	1. 26 N
24	W.	12	8. 54	10. 13	16. 1	3. 21 N	5. 13
25	Th.	13	9. 38	21. 47	27. 35	7. 1	8. 44
26	F.	14	10. 21	33. 24	39. 16	10. 21	11. 52
27	Sa.	15	11. 6	45. 11	51. 9	13. 15	14. 31
28	Su.	16	11. 51	57. 10	63. 15	15. 37	16. 33
29	M.	17	12. 38	69. 23	75. 35	17. 19	17. 53
30	Tu.	18	13. 25	81. 49	88. 5	18. 16	18. 26

NOVEMBER 1773. [127]

Days of the Month.	Days of the Week.	Semidr. γ at Noon.	Semidr. γ at Mid-night.	Hor. Par. γ at Noon.	Hor. Par. γ at Midnight.	Proport. Lo- gar. at Noon.	Proport. Lo- gar. at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	M.	14. 44	14. 44	54. 6	54. 6	5221	5221
2	Tu.	14. 45	14. 46	54. 8	54. 11	5218	5214
3	W.	14. 47	14. 49	54. 16	54. 23	5207	5198
4	Th.	14. 51	14. 55	54. 32	54. 43	5186	5171
5	F.	14. 58	15. 2	54. 57	55. 13	5153	5132
6	Sa.	15. 7	15. 13	55. 30	55. 50	5110	5084
7	Su.	15. 19	15. 26	56. 13	56. 37	5054	5023
8	M.	15. 33	15. 40	57. 3	57. 30	4990	4956
9	Tu.	15. 48	15. 56	57. 58	58. 27	4921	4885
10	W.	16. 3	16. 11	58. 56	59. 24	4849	4815
11	Th.	16. 18	16. 25	59. 51	60. 16	4782	4752
12	F.	16. 31	16. 37	60. 38	60. 57	4725	4703
13	Sa.	16. 41	16. 44	61. 12	61. 23	4685	4672
14	Su.	16. 45	16. 45	61. 28	61. 29	4666	4665
15	M.	16. 44	16. 42	61. 25	61. 16	4670	4680
16	Tu.	16. 38	16. 33	61. 2	60. 45	4697	4717
17	W.	16. 28	16. 21	60. 24	60. 1	4742	4770
18	Th.	16. 14	16. 7	59. 35	59. 9	4801	4833
19	F.	15. 59	15. 52	58. 41	58. 13	4867	4902
20	Sa.	15. 45	15. 37	57. 46	57. 20	4936	4968
21	Su.	15. 31	15. 24	56. 55	56. 31	5000	5031
22	M.	15. 18	15. 12	56. 9	55. 49	5059	5085
23	Tu.	15. 7	15. 3	55. 30	55. 14	5110	5130
24	W.	14. 58	14. 56	54. 59	54. 46	5150	5167
25	Th.	14. 52	14. 50	54. 35	54. 26	5182	5194
26	F.	14. 48	14. 46	54. 18	54. 13	5205	5211
27	Sa.	14. 45	14. 44	54. 8	54. 5	5218	5222
28	Su.	14. 44	14. 44	54. 4	54. 3	5223	5225
29	M.	14. 44	14. 45	54. 5	54. 7	5222	5219
30	Tu.	14. 46	14. 47	54. 10	54. 15	5215	5209

[128] NOVEMBER 1773.

Distances of γ 's Center from \odot , and from Stars east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Pollux.	49. 50. 6	48. 24. 34	46. 59. 12	45. 34. 0
2		38. 31. 18	37. 7. 30	35. 44. 0	34. 20. 54
3		27. 32. 33			
3	Regulus.	61. 41. 27	60. 12. 46	58. 44. 0	57. 15. 11
4		49. 49. 52	48. 20. 32	46. 51. 5	45. 21. 31
5		37. 51. 41	36. 21. 16	34. 50. 42	33. 19. 59
6		25. 43. 54	24. 12. 8	22. 40. 14	21. 8. 14
7		13. 27. 46			
5	The Sun.	114. 9. 28	112. 46. 21	111. 23. 2	109. 59. 31
5		102. 58. 43	101. 33. 49	100. 8. 40	98. 43. 14
7		91. 31. 48	90. 4. 35	88. 37. 2	87. 9. 9
8		79. 44. 19	78. 14. 13	76. 43. 44	75. 12. 51
9		67. 32. 17	65. 58. 54	64. 25. 5	62. 50. 49
10		54. 52. 59	53. 16. 5	51. 38. 46	50. 1. 1
11		41. 45. 58	40. 5. 45	38. 25. 10	
15	β Capri- corni.	52. 53. 9	50. 58. 46	49. 4. 33	47. 10. 31
16		37. 43. 24	35. 50. 43	33. 58. 19	32. 6. 14
17		22. 50. 43			
17	α Pegasi.	71. 43. 8	69. 59. 30	68. 16. 22	66. 33. 46
18		58. 9. 35	56. 30. 41	54. 52. 29	53. 15. 3
19		45. 20. 15	43. 48. 6	42. 17. 1	40. 47. 3
20	α Arietis.	74. 2. 23	72. 25. 4	70. 48. 11	69. 11. 44
21		61. 15. 50	59. 41. 57	58. 8. 30	56. 35. 29
22		48. 57. 2	47. 26. 42	45. 56. 52	44. 27. 32
23		37. 8. 57			
23	Aldeba- ran.	68. 15. 11	66. 42. 34	65. 10. 10	63. 37. 58
24		55. 59. 51	54. 28. 44	52. 57. 47	51. 26. 58
25		43. 55. 3	42. 25. 2	40. 55. 7	39. 25. 18
26		31. 57. 30	30. 28. 18	28. 59. 4	27. 29. 54
27		20. 4. 56			
27	Pollux.	64. 16. 2	62. 49. 19	61. 22. 40	59. 56. 6
28		52. 44. 36	51. 18. 37	49. 52. 46	48. 27. 3
29		41. 20. 44	39. 56. 1	38. 31. 32	37. 7. 21
30		30. 11. 46			
30	Regulus.	64. 38. 28	63. 9. 31	61. 40. 31	60. 11. 28
D. 1		52. 45. 25			

NOVEMBER 1773. [129]

Distances of γ 's Center from \odot , and from Stars east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Pollux.	44. 9. 0	42. 44. 13	41. 19. 39	39. 55. 20
2		32. 58. 13	31. 36. 0	30. 14. 17	28. 53. 7
3	Regulus.	55. 46. 17	54. 17. 19	52. 48. 15	51. 19. 6
4		43. 51. 50	42. 22. 1	40. 52. 3	39. 21. 56
5		31. 49. 6	30. 18. 2	28. 46. 49	27. 15. 27
6		19. 36. 10	18. 4. 3	16. 31. 56	14. 59. 50
4	The Sun.	119. 40. 11	118. 17. 46	116. 55. 10	115. 32. 24
5		108. 35. 48	107. 11. 53	105. 47. 44	104. 23. 21
6		97. 17. 32	95. 51. 33	94. 25. 16	92. 58. 41
7		85. 40. 55	84. 12. 19	82. 43. 21	81. 14. 1
8		73. 41. 34	72. 9. 52	70. 37. 45	69. 5. 14
9		61. 16. 8	59. 41. 0	58. 5. 26	56. 29. 26
10		48. 22. 51	46. 44. 14	45. 5. 13	43. 25. 47
15	β Capricorni.	45. 16. 39	43. 22. 59	41. 29. 33	39. 36. 21
16		30. 14. 26	28. 22. 58	26. 31. 51	24. 41. 6
17	α Pegasi.	64. 51. 43	63. 10. 15	61. 29. 23	59. 49. 9
18		51. 38. 23	50. 2. 31	48. 27. 30	46. 53. 24
19		39. 18. 11			
19	α Arietis.	80. 36. 3	78. 56. 58	77. 18. 20	75. 40. 8
20		67. 35. 43	66. 0. 6	64. 24. 55	62. 50. 10
21		55. 2. 54	53. 30. 45	51. 59. 3	50. 27. 49
22		42. 58. 42	41. 30. 25	40. 2. 41	38. 35. 32
23	Aldebaran.	62. 5. 59	60. 34. 11	59. 2. 34	57. 31. 7
24		49. 56. 19	48. 25. 49	46. 55. 26	45. 25. 11
25		37. 55. 35	36. 25. 58	34. 56. 26	33. 26. 58
26		26. 0. 48	24. 31. 45	23. 2. 46	21. 33. 49
27	Pollux.	58. 29. 36	57. 3. 12	55. 36. 54	54. 10. 42
28		47. 1. 28	45. 39. 1	44. 10. 44	42. 45. 39
29		35. 43. 28	34. 19. 56	32. 56. 47	31. 34. 3
30	Regulus.	58. 42. 22	57. 13. 13	55. 44. 1	54. 14. 45

[130] NOVEMBER 1773.

Distances of Moon's Center from ☉, and from Stars west of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	α Arietis.	30. 28. 35	31. 48. 53	33. 9. 43	34. 31. 3
2		41. 24. 10	42. 47. 49	44. 11. 45	45. 35. 57
3		52. 40. 12			
3	Aldebaran.	18. 27. 21	19. 56. 10	21. 25. 3	22. 54. 2
4		30. 20. 18	31. 49. 52	33. 19. 34	34. 49. 24
5		42. 20. 53	43. 51. 41	45. 22. 41	46. 53. 53
6		54. 33. 8	56. 5. 43	57. 38. 35	59. 11. 43
7		67. 1. 39			
7	Pollux.	25. 55. 56	27. 21. 2	28. 47. 17	30. 14. 37
8		37. 45. 47	39. 18. 27	40. 51. 50	42. 25. 55
9		50. 25. 57	52. 3. 46	53. 42. 10	55. 21. 8
10	Regulus.	26. 53. 47	28. 37. 46	30. 22. 17	32. 7. 20
11		41. 0. 0	42. 47. 58	44. 36. 22	46. 25. 13
12		55. 35. 33	57. 26. 47	59. 18. 22	61. 10. 17
13		70. 34. 6			
17	The Sun.	42. 41. 53	44. 23. 46	46. 5. 17	47. 46. 27
18		56. 6. 28	57. 45. 16	59. 23. 40	61. 1. 39
19		69. 5. 14	70. 40. 41	72. 15. 43	73. 50. 20
20		81. 37. 19	83. 9. 30	84. 41. 17	86. 12. 41
21		93. 44. 12	95. 13. 26	96. 42. 20	98. 10. 54
22		105. 28. 58	106. 55. 41	108. 22. 7	109. 48. 17
23		116. 55. 14	118. 19. 54	119. 44. 20	121. 8. 34
21	β Capricorni.	32. 25. 43	34. 2. 49	35. 39. 36	37. 16. 2
22		45. 13. 31	46. 48. 8	48. 22. 29	49. 56. 34
23	α Aquilæ.	64. 1. 34	65. 23. 35	66. 45. 40	68. 7. 47
24		74. 58. 34	76. 20. 42	77. 42. 47	79. 4. 49
25	Fomalhaut.	54. 9. 27	55. 28. 2	56. 46. 55	58. 6. 5
26		64. 45. 3	66. 5. 22	67. 25. 49	68. 46. 23
27	α Pegasi.	59. 53. 3	61. 15. 51	62. 38. 47	64. 1. 54
28		70. 58. 45	72. 22. 24	73. 46. 8	75. 9. 56
29		82. 9. 53			
29	α Arietis.	38. 34. 14	39. 57. 28	41. 21. 0	42. 44. 49
30		49. 47. 56	51. 13. 16	52. 38. 48	54. 4. 31
D. 1		61. 15. 41			

NOVEMBER 1773. [131]

Distances of γ 's center from \odot , and from stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	21 Hours.	18 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	α Arietis.	35. 52. 52	37. 15. 7	38. 37. 46	40. 0. 48
2		47. 0. 23	48. 25. 3	49. 49. 55	51. 14. 58
3	Aldebaran.	24. 23. 5	25. 52. 14	27. 21. 29	28. 50. 50
4		36. 19. 23	37. 49. 31	39. 19. 48	40. 50. 15
5		48. 25. 17	49. 56. 54	51. 28. 45	53. 0. 49
6		60. 45. 7	62. 18. 48	63. 52. 47	65. 27. 4
7	Pollux.	31. 43. 0	33. 12. 22	34. 42. 39	36. 13. 49
8		44. 0. 41	45. 36. 4	47. 12. 5	48. 48. 43
9		57. 0. 39			
9	Regulus.	20. 3. 39	21. 45. 18	23. 27. 32	25. 10. 22
10		33. 52. 54	35. 38. 57	37. 25. 29	39. 12. 30
11		48. 14. 29	50. 4. 10	51. 54. 14	53. 44. 42
12		63. 2. 30	64. 55. 1	66. 47. 48	68. 40. 50
16	The Sun.			39. 17. 8	40. 59. 40
17		49. 27. 15	51. 7. 39	52. 47. 39	54. 27. 15
18		62. 39. 13	64. 16. 21	65. 53. 4	67. 29. 22
19		75. 24. 32	76. 58. 20	78. 31. 44	80. 4. 43
20		87. 43. 42	89. 14. 22	90. 44. 40	92. 14. 37
21		99. 39. 8	101. 7. 3	102. 34. 39	104. 1. 57
22		111. 14. 11	112. 39. 49	114. 5. 12	115. 30. 20
20	β Capricorni.	25. 53. 45	27. 32. 17	29. 10. 27	30. 48. 16
21		38. 52. 9	40. 27. 56	42. 3. 26	43. 38. 37
22		51. 30. 24			
22	α Aquilæ.	58. 34. 20	59. 56. 0	61. 17. 45	62. 39. 37
23		69. 29. 56	70. 52. 6	72. 14. 16	73. 36. 25
24		80. 26. 48			
24	Fomalhaut.	48. 58. 33	50. 15. 42	51. 33. 16	52. 51. 11
25		59. 25. 29	60. 45. 5	62. 4. 54	63. 24. 54
26		70. 7. 3			
26	α Pegasi.	54. 23. 29	55. 45. 37	57. 7. 55	58. 30. 24
27		65. 25. 2	66. 48. 19	68. 11. 42	69. 35. 11
28		76. 33. 48	77. 57. 44	79. 21. 44	80. 45. 47
29	α Arietis.	44. 8. 56	45. 33. 19	46. 57. 51	48. 22. 49
30		55. 30. 26	56. 56. 31	58. 22. 46	59. 49. 9

[132] NOVEMBER 1773.

Configurations of the SATELLITES of JUPITER
at 8 o'clock in the Evening.

1				2	⊙	1.		4	3.
2					⊙	1 0 3		2	4
3			3.		1.	⊙	2.		4
4			3	2.		⊙		1	4
5	2.0			3	1.	⊙			4.
6						⊙		3	2.
7					1	⊙			4.
8				2		⊙	1 0 4		3.
9	1.0				4.	⊙	3.	2	
10			4.	3.		1.	⊙	2.	
11		4.	3.	2.			⊙		1
12	4.			3	1.		⊙		2.0
13	4						⊙	3	1. 2.
14		4			1	2.	⊙		3
15			4	2			⊙	1.	3.
16				4	1		⊙	2	
17	1●				3.		⊙	4	2.
18			3.	2.			⊙	1	4
19				3	1.	2	⊙		4
20	3.0						⊙	1	2
21	2●				1		⊙		3
22				2			⊙	1.	3.
23						1	⊙	2	4.
24	1●				3.		⊙	2.	4.
25			3.	2.		4.	⊙	1	
26			3	4.		1.	⊙		
27						3	⊙	1	2
28		4.				1.	⊙		3
29		4.			2		⊙	1.	3.
30		4				1	⊙	2	3.

D E C E M B E R 1773. [133]

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.
			D. H. M.
1	W.		Last Quarter — 6. 17. 46
2	Th.		New Moon — 13. 10. 3
3	F.		First Quarter — 20. 8. 11
4	Sa.		Full Moon — 28. 13. 2
			Other Phenomena.
			D.
5	Su.	2d Sunday in Advent.	3. ☿ ♄ diff. Lat. 5'.
6	M.	Nicholas.	☿ 2 ad ♄ 23 ^h . 45'.
7	Tu.		4. ☿ ♄ 20 ^h . 10'.
8	W.	Conception of V. Mary.	5. ☿ ♄ 5 ^h . 47'.
9	Th.		6. ☿ ♄ 22 ^h . 55'.
10	F.		7. ☿ ♄ 8 ^h . 59'.
11	Sa.		8. ☿ ♄ 21 ^h . 51'.
12	Su.	3d Sunday in Advent.	10. ☿ ♄ 1 ^h . 2'.
13	M.	Lucy.	11. ☿ ♄ 10 ^h . 21'.
14	Tu.		☿ ♄ 13 ^h . 55'.
15	W.		☿ ♄ 17 ^h . 51'.
16	Th.	O Sap. Camb. T. ends.	☿ Stationary.
17	F.	Oxford Term ends.	15. ☿ ♄ 23 ^h . 11'.
18	Sa.		18. ☿ ♄ 1 ^h . 58'.
19	Su.	4th Sunday in Advent.	20. ☿ ♄ 10 ^h . 36'.
20	M.		☿ enters ♄ at 22 ^h . 54'.
21	Tu.	St. Thomas.	23. ♄ ♄ diff. Lat. 44'.
22	W.		24. ♄ ♄ diff. Lat. 49'.
23	Th.		25. ☿ ♄ 14 ^h . 36'.
24	F.		☿ 1 ad ♄ 16 ^h . 46'.
25	Sa.	Christmas-Day.	☿ 2 ad ♄ 17 ^h . 17'.
26	Su.	1st Su. aft. Chr. St. Steph.	☿ ♄ 22 ^h . 41'.
27	M.	St. John.	29. ♄ ♄ diff. Lat. 37'.
28	Tu.	Innocents.	31. ☿ 2 ad ♄ 5 ^h . 10'.
29	W.		
30	Th.		
31	F.	Silvester.	

[134] D E C E M B E R 1773.

Days of the Month.	Days of the Week.	Sun's Longitude.	Sun's Right Asc. in Time.	Sun's Declin. South.	Equat. of Time. Sub.	Diff.
		S. D. M. S.	H. M. S.	D. M. S.	M. S.	S.
1	W.	8. 9. 41. 18	16. 32. 6, 0	21. 55. 42	10. 23, 9	23, 3
2	Th.	8. 10. 42. 12	16. 36. 26, 0	22. 4. 34	10. 0, 6	24, 0
3	F.	8. 11. 43. 8	16. 40. 46, 6	22. 13. 0	9. 36, 6	24, 6
4	Sa.	8. 12. 44. 5	16. 45. 7, 8	22. 21. 0	9. 12, 0	25, 2
5	Su.	8. 13. 45. 4	16. 49. 29, 6	22. 28. 35	8. 46, 8	25, 7
6	M.	8. 14. 46. 4	16. 53. 52, 0	22. 35. 43	8. 21, 1	26, 3
7	Tu.	8. 15. 47. 5	16. 58. 14, 8	22. 42. 24	7. 54, 8	26, 7
8	W.	8. 16. 48. 7	17. 2. 38, 2	22. 48. 39	7. 28, 1	27, 2
9	Th.	8. 17. 49. 10	17. 7. 2, 0	22. 54. 27	7. 0, 9	27, 7
10	F.	8. 18. 50. 15	17. 11. 26, 3	22. 59. 47	6. 33, 2	28, 0
11	Sa.	8. 19. 51. 20	17. 15. 51, 0	23. 4. 40	6. 5, 2	28, 4
12	Su.	8. 20. 52. 27	17. 20. 16, 1	23. 9. 6	5. 36, 8	28, 8
13	M.	8. 21. 53. 34	17. 24. 41, 5	23. 13. 4	5. 8, 0	29, 1
14	Tu.	8. 22. 54. 42	17. 29. 7, 2	23. 16. 34	4. 38, 9	29, 3
15	W.	8. 23. 55. 51	17. 33. 33, 2	23. 19. 37	4. 9, 6	29, 6
16	Th.	8. 24. 57. 0	17. 37. 59, 4	23. 22. 11	3. 40, 0	29, 7
17	F.	8. 25. 58. 9	17. 42. 25, 8	23. 24. 17	3. 10, 3	29, 8
18	Sa.	8. 26. 59. 18	17. 46. 52, 2	23. 25. 55	2. 40, 5	30, 0
19	Su.	8. 28. 0. 28	17. 51. 18, 8	23. 27. 4	2. 10, 5	30, 1
20	M.	8. 29. 1. 38	17. 55. 45, 5	23. 27. 45	1. 40, 4	30, 1
21	Tu.	9. 0. 2. 48	18. 0. 12, 1	23. 27. 58	1. 10, 3	30, 1
22	W.	9. 1. 3. 58	18. 4. 38, 9	23. 27. 43	0. 40, 2	30, 0
23	Th.	9. 2. 5. 7	18. 9. 5, 5	23. 26. 59	0. 10, 2	29, 9
24	F.	9. 3. 6. 17	18. 13. 32, 1	23. 25. 47	Ad: 19, 7	29, 8
25	Sa.	9. 4. 7. 26	18. 17. 58, 6	23. 24. 6	0. 49, 5	29, 7
26	Su.	9. 5. 8. 36	18. 22. 25, 0	23. 21. 58	1. 19, 2	29, 6
27	M.	9. 6. 9. 45	18. 26. 51, 2	23. 19. 21	1. 48, 8	29, 4
28	Tu.	9. 7. 10. 55	18. 31. 17, 2	23. 16. 16	2. 18, 2	29, 2
29	W.	9. 8. 12. 5	18. 35. 43, 0	23. 12. 43	2. 47, 4	28, 9
30	Th.	9. 9. 13. 14	18. 40. 8, 6	23. 8. 43	3. 16, 3	28, 7
31	F.	9. 10. 14. 24	18. 44. 33, 9	23. 4. 14	3. 45, 0	28, 5

D E C E M B E R 1773. [135]

Days of the Month.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	16. 17, 2	1. 10, 2	2. 32, 3	9. 993541	5. 27. 42
7	16. 17, 9	1. 10, 7	2. 32, 5	9. 993223	5. 27. 23
13	16. 18, 5	1. 11, 0	2. 32, 7	9. 992973	5. 27. 4
19	16. 19, 0	1. 11, 1	2. 32, 8	9. 992778	5. 26. 45
25	16. 19, 2	1. 11, 1	2. 32, 9	9. 992653	5. 26. 26

Eclipses of the SATELLITES of J U P I T E R.

I. Satellite Emerfions.		II. Satellite Emerfions.		III. Satellite.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
1	13. 7. 26	2	1. 38. 44	1	4. 16. 24 I
3	7*35. 39	5	14. 55. 46	1	6*36. 44 E
5	2. 3. 51	9	4. 12. 40	8	8*16. 26 I
6	20. 32. 1	12	17. 29. 20	8	10*35. 20 E
8	15. 0. 11	16	6*45. 58	15	12. 16. 3 I
10	9*28. 20	19	20. 2. 32	15	14. 33. 31 E
12	3. 56. 27	23	9*19. 3	22	16. 15. 39 I
13	22. 24. 33	26	22. 35. 29	22	18. 31. 39 E
15	16. 52. 39	30	11. 51. 52	29	20. 15. 18 I
17	11*20. 43			29	22. 29. 54 E
19	5*48. 49			IV. Satellite.	
21	0. 16. 55			12	10*41. 50 I
22	18. 45. 1			12	11*15. 15 E
24	13. 13. 6			Conjunctions.	
26	7*41. 11			29	5. 8 sup.
28	2. 9. 17				
29	20. 37. 24				
31	15. 5. 30				

[136] DECEMBER 1773.

Days.	Heliocentric Longitude.	Heliocentric Latitude.	Geocentric Longitude.	Geocentric Latitude.	Declination.	Passage over-Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

MERCURY. Gr. El. 2° . Inf. δ 20° . $14\frac{1}{2}^{\text{h}}$

1	11. 10. 42	6. 21 S	9. 0. 32	2. 16 S	25. 44 S	1. 30
7	0. 8. 56	4. 12	9. 5. 58	1. 35	24. 55	1. 28
13	1. 12. 29	0. 24 S	9. 7. 1	0. 10 S	23. 27	1. 6
19	2. 19. 50	3. 55 N	9. 1. 41	1. 47 N	21. 40	0. 16
25	3. 26. 37	6. 36	8. 24. 2	3. 1	20. 19	23. 16

VENUS.

1	0. 2. 14	3. 14 S	9. 23. 8	2. 24 S	23. 51 S	3. 9
7	0. 11. 48	3. 1	10. 0. 6	2. 21	22. 27	3. 13
13	0. 21. 23	2. 44	10. 7. 1	2. 13	20. 41	3. 15
19	1. 0. 58	2. 21	10. 13. 49	2. 0	18. 36	3. 16
25	1. 10. 34	1. 54	10. 20. 30	1. 43	16. 18	3. 16

MARS.

1	9. 1. 16	1. 16 S	8. 22. 33	0. 46 S	24. 2 S	0. 55
7	9. 4. 46	1. 20	8. 27. 5	0. 49	24. 15	0. 49
13	9. 8. 18	1. 25	9. 1. 38	0. 51	24. 19	0. 43
19	9. 11. 52	1. 30	9. 6. 13	0. 54	24. 13	0. 37
25	9. 15. 28	1. 34	9. 10. 49	0. 56	23. 58	0. 30

JUPITER. \square 21° . 18^{h} .

1	0. 10. 17	1. 19 S	11. 29. 29	1. 27 S	1. 32 S	7. 27
7	0. 10. 50	1. 19	11. 29. 42	1. 25	1. 25	7. 2
13	0. 11. 23	1. 19	0. 0. 2	1. 23	1. 15	6. 37
19	0. 11. 56	1. 19	0. 0. 29	1. 21	1. 3	6. 12
25	0. 12. 29	1. 19	0. 1. 2	1. 20	0. 49	5. 47

SATURN. \square 16° . $21\frac{1}{2}^{\text{h}}$.

1	5. 19. 19	2. 7 N	5. 25. 7	2. 4 N	3. 52 N	19. 10
7	5. 19. 32	2. 7	5. 25. 27	2. 6	3. 45	18. 45
13	5. 19. 44	2. 8	5. 25. 43	2. 8	3. 39	18. 20
19	5. 19. 56	2. 8	5. 25. 56	2. 10	3. 36	17. 54
25	5. 20. 8	2. 8	5. 26. 5	2. 11	3. 34	17. 28

DECEMBER 1773. [137]

Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midnight.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	W.	3. 4. 9. 1	3. 10. 9. 11	4. 59. 42 S	4. 54. 50 S
2	Th.	3. 16. 10. 44	3. 22. 14. 0	4. 46. 45	4. 35. 35
3	F.	3. 28. 19. 6	4. 4. 26. 29	4. 21. 14	4. 3. 36
4	Sa.	4. 10. 36. 33	4. 16. 49. 41	3. 43. 2	3. 19. 37
5	Su.	4. 23. 6. 19	4. 29. 26. 48	2. 53. 33	2. 25. 3
6	M.	5. 5. 51. 47	5. 12. 21. 42	1. 54. 24	1. 21. 49
7	Tu.	5. 18. 57. 3	5. 25. 38. 15	0. 47. 43 S	0. 12. 28 S
8	W.	6. 2. 25. 44	6. 9. 19. 43	0. 23. 31 N	0. 59. 42 N
9	Th.	6. 16. 20. 30	6. 23. 28. 3	1. 35. 33	2. 10. 25
10	F.	7. 0. 42. 22	7. 8. 3. 22	2. 43. 49	3. 14. 53
11	Sa.	7. 15. 29. 26	7. 23. 0. 54	3. 43. 0	4. 7. 35
12	Su.	8. 0. 36. 22	8. 8. 14. 38	4. 27. 58	4. 43. 40
13	M.	8. 15. 54. 9	8. 23. 33. 40	4. 54. 20	4. 59. 39
14	Tu.	9. 1. 11. 31	9. 8. 46. 25	4. 59. 36	4. 54. 15
15	W.	9. 16. 16. 50	9. 23. 41. 43	4. 43. 51	4. 28. 44
16	Th.	10. 1. 0. 14	10. 8. 11. 39	4. 9. 25	3. 46. 20
17	F.	10. 15. 15. 35	10. 22. 11. 50	3. 20. 10	2. 51. 25
18	Sa.	10. 29. 0. 31	11. 5. 41. 44	2. 20. 42	1. 48. 35
19	Su.	11. 12. 15. 54	11. 18. 43. 29	1. 15. 32	0. 42. 0 N
20	M.	11. 25. 5. 0	0. 1. 21. 5	0. 8. 30 N	0. 24. 38 S
21	Tu.	0. 7. 32. 23	0. 13. 39. 27	0. 57. 6 S	1. 28. 28
22	W.	0. 19. 43. 11	0. 35. 44. 4	1. 58. 32	2. 27. 3
23	Th.	1. 1. 42. 41	1. 7. 39. 37	2. 53. 44	3. 18. 20
24	F.	1. 13. 35. 33	1. 19. 30. 47	3. 40. 43	4. 0. 36
25	Sa.	1. 25. 25. 53	2. 1. 21. 10	4. 17. 55	4. 32. 25
26	Su.	2. 7. 17. 1	2. 13. 13. 43	4. 43. 58	4. 52. 26
27	M.	2. 19. 11. 27	2. 25. 10. 23	4. 57. 43	4. 59. 46
28	Tu.	3. 1. 10. 49	3. 7. 12. 41	4. 58. 28	4. 53. 50
29	W.	3. 13. 16. 10	3. 19. 21. 25	4. 45. 51	4. 34. 33
30	Th.	3. 25. 28. 33	4. 1. 37. 30	4. 19. 59	4. 2. 19
31	F.	4. 7. 48. 24	4. 14. 1. 11	4. 41. 20	3. 18. 14

[138] DECEMBER 1773.							
Days of the Month.	Days of the Week.	D's Age.	D's Passage over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's Declination at Noon.	D's Declination at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	W.	19	14. 13	94. 22	100. 39	18. 25 N	18. 11 N
2	Th.	20	15. 0	106. 57	113. 15	17. 44	17. 5
3	F.	21	15. 47	119. 31	125. 47	16. 15	15. 13
4	Sa.	22	16. 34	132. 2	138. 15	14. 1	12. 38
5	Su.	23	17. 21	144. 29	150. 43	11. 6	9. 25
6	M.	24	18. 9	156. 57	163. 13	7. 36	5. 40
7	Tu.	25	18. 57	169. 32	175. 55	3. 39 N	1. 33 N
8	W.	26	19. 47	182. 23	188. 58	0. 36 S	2. 47 S
9	Th.	27	20. 39	195. 40	202. 32	4. 58	7. 6
10	F.	28	21. 34	209. 33	216. 45	9. 10	11. 8
11	Sa.	29	22. 32	224. 8	231. 41	12. 56	14. 33
12	Su.	30	23. 34	239. 25	247. 16	15. 56	17. 2
13	M.	1	0	255. 14	263. 14	17. 50	18. 19
14	Tu.	2	0. 37	271. 15	279. 12	18. 28	18. 17
15	W.	3	1. 38	287. 4	294. 46	17. 47	16. 59
16	Th.	4	2. 37	302. 17	309. 37	15. 54	14. 35
17	F.	5	3. 32	316. 43	323. 37	13. 5	11. 26
18	Sa.	6	4. 23	330. 19	336. 49	9. 38	7. 45
19	Su.	7	5. 11	343. 10	349. 22	5. 48	3. 49 S
20	M.	8	5. 57	355. 26	1. 24	1. 50 S	0. 10 N
21	Tu.	9	6. 41	7. 18	13. 9	2. 7 N	4. 2
22	W.	10	7. 24	18. 57	24. 45	5. 54	7. 40
23	Th.	11	8. 7	30. 34	36. 23	9. 22	10. 57
24	F.	12	8. 52	42. 16	48. 11	12. 25	13. 46
25	Sa.	13	9. 36	54. 9	60. 11	14. 58	16. 1
26	Su.	14	10. 22	66. 17	72. 27	16. 53	17. 35
27	M.	15	11. 9	78. 40	84. 56	18. 5	18. 23
28	Tu.	16	11. 57	91. 14	97. 34	18. 29	18. 23
29	W.	17	12. 44	103. 55	110. 16	18. 4	17. 32
30	Th.	18	13. 32	116. 37	122. 57	16. 48	15. 53
31	F.	19	14. 20	129. 15	135. 32	14. 46	13. 31

D E C E M B E R 1773. [139]

Days of the Month.	Days of the Week.	Semidr. ☽ at Noon.	Semidr. ☽ at Mid-night.	Hor. Par. ☽ at Noon.	Hor. Par. ☽ at Midnight.	Propor. Lo- gar. at Noon.	Propor. Lo- gar. at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	W.	14. 49	14. 51	54. 22	54. 29	5199	5190
2	Th.	14. 53	14. 56	54. 39	54. 50	5177	5162
3	F.	15. 0	15. 4	55. 2	55. 16	5146	5128
4	Sa.	15. 8	15. 13	55. 33	55. 50	5106	5084
5	Su.	15. 18	15. 24	56. 9	56. 30	5059	5032
6	M.	15. 30	15. 37	56. 53	57. 17	5003	4972
7	Tu.	15. 43	15. 50	57. 40	58. 8	4943	4908
8	W.	15. 58	16. 5	58. 34	59. 1	4876	4843
9	Th.	16. 12	16. 19	59. 27	59. 52	4811	4781
10	F.	16. 25	16. 31	60. 15	60. 36	4753	4728
11	Sa.	16. 36	16. 40	60. 54	61. 9	4707	4689
12	Su.	16. 42	16. 44	61. 19	61. 24	4677	4671
13	M.	16. 44	16. 43	61. 25	61. 21	4670	4675
14	Tu.	16. 41	16. 37	61. 12	60. 59	4685	4700
15	W.	16. 32	16. 26	60. 41	60. 20	4722	4747
16	Th.	16. 20	16. 12	59. 56	59. 29	4776	4809
17	F.	16. 5	15. 57	59. 1	58. 32	4843	4878
18	Sa.	15. 49	15. 41	58. 3	57. 35	4915	4950
19	Su.	15. 34	15. 27	57. 7	56. 40	4985	5019
20	M.	15. 20	15. 14	56. 16	55. 53	5050	5080
21	Tu.	15. 8	15. 3	55. 33	55. 14	5106	5130
22	W.	14. 59	14. 55	54. 58	54. 44	5152	5170
23	Th.	14. 52	14. 49	54. 33	54. 24	5185	5197
24	F.	14. 47	14. 46	54. 17	54. 12	5206	5213
25	Sa.	14. 45	14. 45	54. 9	54. 8	5217	5218
26	Su.	14. 45	14. 46	54. 8	54. 10	5218	5215
27	M.	14. 46	14. 48	54. 14	54. 19	5210	5203
28	Tu.	14. 50	14. 52	54. 25	54. 33	5195	5185
29	W.	14. 54	14. 57	54. 41	54. 51	5174	5161
30	Th.	15. 0	15. 3	55. 1	55. 13	5148	5132
31	F.	15. 6	15. 10	55. 25	55. 39	5116	5098

[140] DECEMBER 1773.

Distances of J's Center from ☉, and from Stars east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Regulus.	52. 45. 26	51. 15. 3	49. 46. 36	48. 17. 4
2		40. 48. 13	39. 18. 10	37. 48. 1	36. 17. 46
3		28. 45. 5	27. 14. 13	25. 43. 16	24. 12. 14
4		16. 36. 11			
4	Spica ♏	69. 59. 32	68. 26. 50	66. 53. 55	65. 20. 47
5		57. 31. 39	55. 57. 7	54. 22. 19	52. 47. 15
6		44. 47. 39	43. 10. 51	41. 33. 45	39. 56. 22
7		31. 44. 53			
4	The Sun.		120. 38. 6	119. 12. 59	117. 47. 37
5		110. 37. 6	109. 10. 15	107. 43. 7	106. 15. 42
6		98. 53. 59	97. 24. 41	95. 55. 4	94. 25. 7
7		86. 50. 3	85. 17. 57	83. 45. 28	82. 12. 36
8		74. 22. 24	72. 47. 11	71. 11. 35	69. 35. 35
9		61. 29. 23	59. 50. 57	58. 12. 9	56. 32. 57
10		48. 11. 23	46. 30. 0	44. 48. 18	43. 6. 19
15	α Pegasi.	63. 59. 6	62. 15. 8	60. 31. 45	58. 48. 58
16		50. 25. 32	48. 47. 16	47. 9. 56	45. 33. 37
17		37. 49. 31			
17	α Arietis.	78. 50. 28	77. 8. 26	75. 26. 53	73. 45. 50
18		65. 28. 0	63. 49. 58	62. 12. 27	60. 35. 28
19		52. 38. 37	51. 4. 53	49. 31. 43	47. 59. 9
20		40. 25. 25	38. 56. 37	37. 28. 33	36. 1. 17
21		28. 58. 21			
21	Aldebaran.	59. 9. 7	57. 36. 46	56. 4. 32	54. 32. 35
22		46. 56. 6	45. 25. 24	43. 54. 54	42. 24. 35
23		34. 55. 17	33. 25. 51	31. 56. 31	30. 27. 17
24		23. 2. 20	21. 33. 34	20. 4. 52	18. 36. 13
25	Pollux.	55. 40. 8	54. 14. 4	52. 48. 5	51. 22. 12
26		44. 14. 23	42. 49. 11	41. 24. 9	39. 59. 19
27		32. 58. 39			
27	Regulus.	67. 38. 5	66. 8. 58	64. 39. 45	63. 10. 27
28		55. 42. 35	54. 12. 46	52. 42. 52	51. 12. 52
29		43. 41. 20	42. 10. 42	40. 39. 58	39. 9. 8
30		31. 33. 18	30. 1. 50	28. 30. 17	26. 58. 38
31		19. 19. 22			
31	Spica ♏	72. 47. 22	71. 14. 33	69. 41. 35	68. 8. 28
1.1		60. 20. 30			

DECEMBER 1773. [141]

Distances of γ 's Center from \odot , and from Stars east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Regulus.	46. 47. 28	45. 17. 47	43. 48. 1	42. 18. 10
2		34. 47. 25	33. 16. 59	31. 46. 27	30. 15. 49
3		22. 41. 7	21. 9. 57	19. 38. 44	18. 7. 29
4	Spica α	63. 47. 26	62. 13. 51	60. 40. 1	59. 5. 57
5		51. 11. 55	49. 36. 17	48. 0. 22	46. 24. 9
6		38. 18. 41	36. 40. 43	35. 2. 26	33. 23. 50
4	The Sun.	116. 22. 1	114. 56. 10	113. 30. 4	112. 3. 43
5		104. 47. 59	103. 19. 56	101. 51. 37	100. 22. 58
6		92. 54. 49	91. 24. 10	89. 53. 9	88. 21. 47
7		80. 39. 21	79. 5. 42	77. 31. 40	75. 57. 14
8		67. 59. 9	66. 22. 18	64. 45. 4	63. 7. 25
9		54. 53. 23	53. 13. 25	51. 33. 6	49. 52. 25
10		41. 24. 2	39. 41. 30		
14	α Pegasi.	70. 59. 58	69. 14. 4	67. 28. 36	65. 43. 36
15		57. 6. 50	55. 25. 22	53. 44. 37	52. 4. 40
16		43. 58. 23	42. 24. 17	40. 51. 24	39. 19. 47
17	α Arictis.	72. 5. 16	70. 25. 11	68. 45. 37	67. 0. 33
18		58. 59. 0	57. 23. 5	55. 47. 43	54. 12. 53
19		46. 27. 9	44. 55. 45	43. 24. 59	41. 54. 52
20		34. 34. 51	33. 9. 18	31. 44. 40	30. 21. 0
21	Aldebaran.	53. 0. 51	51. 29. 22	49. 58. 4	48. 27. 0
22		40. 54. 25	39. 24. 25	37. 54. 34	36. 24. 51
23		28. 58. 9	27. 29. 5	26. 0. 5	24. 31. 10
24		17. 7. 37			
24	Pollux.	61. 25. 18	59. 58. 53	58. 32. 36	57. 0. 18
25		49. 56. 25	48. 30. 43	47. 5. 9	45. 39. 42
26		38. 34. 40	37. 10. 15	35. 46. 7	34. 22. 14
27	Regulus.	61. 41. 3	60. 11. 34	58. 41. 59	57. 12. 20
28		49. 42. 46	48. 12. 34	46. 42. 15	45. 11. 51
29		37. 38. 11	36. 7. 7	34. 35. 57	33. 4. 40
30		25. 26. 55	23. 55. 7	22. 23. 16	20. 51. 21
31	Spica α	66. 35. 11	65. 1. 45	63. 28. 9	61. 54. 24

[142] D E C E M B E R 1773.

Distances of γ 's Center from \odot , and from Stars west of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Aldebaran.	27. 24. 5	28. 53. 38	30. 23. 16	31. 52. 59
2		39. 23. 2	40. 53. 23	42. 23. 51	43. 54. 27
3		51. 29. 22	53. 0. 48	54. 32. 24	56. 4. 11
4		63. 45. 52			
4	Pollux.	22. 57. 9	24. 18. 18	25. 40. 46	27. 4. 27
5		34. 18. 12	35. 47. 17	37. 17. 2	38. 47. 27
6		46. 28. 13	48. 1. 54	49. 36. 5	51. 10. 48
7		59. 11. 25			
7	Regulus.	22. 17. 40	23. 56. 51	25. 36. 30	27. 16. 38
8		35. 44. 14	37. 27. 5	39. 10. 22	40. 54. 5
9		49. 39. 17	51. 25. 36	53. 12. 20	54. 59. 29
10		64. 1. 25	65. 50. 59	67. 40. 55	69. 31. 12
11	Spica α	25. 27. 1	27. 17. 59	29. 9. 24	31. 1. 14
12		40. 24. 57			
16	The Sun.			39. 34. 39	41. 13. 35
17		49. 22. 28	50. 58. 59	52. 35. 5	54. 10. 47
18		62. 2. 45	63. 35. 50	65. 8. 30	66. 40. 45
19		74. 15. 40	75. 45. 26	77. 14. 50	78. 43. 50
20		86. 3. 22	87. 30. 13	88. 56. 45	90. 22. 58
21		97. 29. 31	98. 53. 58	100. 18. 10	101. 42. 7
22		108. 38. 32	110. 1. 12	111. 23. 41	112. 45. 59
23		119. 35. 4			
20	α Aquilæ.	61. 9. 19	62. 32. 35	63. 55. 51	65. 19. 7
21		72. 14. 57	73. 37. 54	75. 0. 44	76. 23. 28
22		83. 15. 41			
22	Fomalhaut.	51. 25. 33	52. 44. 7	54. 2. 56	55. 22. 0
23		62. 0. 26	63. 20. 36	64. 40. 53	66. 1. 18
24		72. 44. 56			
24	α Pegasi.	57. 11. 45	58. 33. 54	59. 56. 11	61. 18. 36
25		68. 12. 43	69. 35. 52	70. 59. 8	72. 22. 29
26		79. 20. 44			
26	γ Arietis.	35. 48. 16	37. 10. 30	38. 33. 8	39. 56. 11
27		46. 56. 46	48. 21. 47	49. 47. 3	51. 12. 34
28		58. 23. 37			
28	Aldebaran.	24. 26. 44	25. 56. 41	27. 26. 41	28. 56. 53
29		36. 29. 19	38. 0. 10	39. 31. 8	41. 2. 14
30		48. 39. 43	50. 11. 36	51. 43. 36	53. 15. 45
31		60. 58. 48	62. 31. 53	64. 5. 7	65. 38. 31
Ja. 1		73. 27. 56			

D E C E M B E R 1773. [143]

Distances of γ 's Center from \odot , and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Aldebaran.	33. 22. 47	34. 52. 41	36. 22. 42	37. 52. 49
2		45. 25. 10	46. 56. 0	48. 25. 59	49. 58. 6
3		57. 36. 8	59. 8. 16	60. 40. 36	62. 13. 8
4	Pollux.	28. 29. 16	29. 55. 8	31. 21. 58	32. 49. 40
5		40. 18. 29	41. 50. 6	43. 22. 14	44. 54. 57
6		52. 46. 1	54. 21. 42	55. 57. 51	57. 34. 26
7	Regulus.	28. 57. 14	30. 38. 18	32. 19. 50	34. 1. 49
8		42. 38. 17	44. 22. 53	46. 7. 54	47. 53. 23
9		56. 47. 3	58. 35. 3	60. 23. 27	62. 12. 14
10		71. 21. 51			
10	Spica μ	18. 8. 39	19. 57. 20	21. 46. 39	23. 36. 34
11		32. 53. 25	34. 45. 56	36. 38. 43	38. 31. 44
16	The Sun.	42. 52. 8	44. 30. 19	46. 8. 6	47. 45. 28
17		55. 46. 3	57. 20. 52	58. 55. 16	60. 29. 13
18		68. 12. 34	69. 43. 57	71. 14. 56	72. 45. 30
19		80. 12. 28	81. 40. 43	83. 8. 37	84. 36. 10
20		91. 48. 52	93. 14. 28	94. 39. 46	96. 4. 47
21		103. 5. 49	104. 29. 19	105. 52. 36	107. 15. 40
22		114. 8. 7	115. 30. 6	116. 51. 55	118. 13. 34
20	α Aquila.	66. 42. 23	68. 5. 37	69. 28. 47	70. 51. 54
21		77. 46. 6	79. 8. 39	80. 31. 6	81. 53. 27
22	Fomalhaut.	56. 41. 18	58. 0. 49	59. 20. 30	60. 40. 23
23		67. 21. 50	68. 42. 29	70. 3. 13	71. 24. 2
24	α Pegasi.	62. 41. 10	64. 3. 52	65. 26. 42	66. 49. 39
25		73. 45. 57	75. 9. 30	76. 33. 9	77. 56. 54
26	α Arietis.	41. 19. 37	42. 43. 25	44. 7. 33	45. 32. 1
27		52. 38. 29	54. 4. 20	55. 30. 33	56. 56. 59
28	Aldebaran.	30. 27. 9	31. 57. 31	33. 28. 0	34. 58. 36
29		42. 33. 27	44. 4. 49	45. 36. 19	47. 7. 57
30		54. 48. 3	56. 20. 31	57. 53. 7	59. 25. 53
31		67. 12. 5	68. 45. 48	70. 19. 41	71. 53. 43

[144] DECEMBER 1773.

Configurations of the SATELLITES of JUPITER
at 7 o' th' Clock in the Evening.

1		4	3.	⊙	1.	2.	
2	1.0		3. 4	2.	⊙		
3			3	2	1. ⊙		
4				3	⊙	1	4. 2
5				1.	⊙	2.	3
6			2.		⊙	1	3
7			2		⊙	2	3
8				2.	⊙	1.	2.
9		3.	2.	1.	⊙		4.
10	1.0		3	2	⊙		4.
11				3	⊙	1	2
12				1.0 4	⊙	2	3
13			2.	2.	⊙	1	3
14		4.		1	⊙		3.
15					⊙	1.	2.
16	4		3.	2.	⊙		
17	4		3	2	⊙	1.	
18	1.0		4	3	⊙		2
19			4	1.	⊙	2	3
20	4.0			2.	⊙	1	3
21				1.	⊙	2	3
22					⊙	3.	1.
23	2.0		3.	1	⊙		4
24			3.	2	⊙	1.	4
25	1.0			3	⊙		2
26	1.0				⊙	3	2.
27				1.	⊙	3	4.
28				1.	⊙	4.	3.
29				4.	⊙	1	2
30	2.0		4.	3.	⊙		
31		4.	3.	1	⊙	1.	

EXPLANATION and USE OF THE ARTICLES

Contained in the

ASTRONOMICAL and NAUTICAL EPHEMERIS.

IT may be proper first to premise, that all the Calculations are made according to apparent Time by the Meridian of the Royal Observatory at Greenwich. They are likewise adapted to apparent Noon, except where they are otherwise distinguished, as the Eclipses and Configurations of Jupiter's Satellites, the Moon's Places, &c, computed for Midnight, and the Distances of the Moon from the Sun and Stars for every third Hour; which are all computed to the apparent Times set down.

Apparent Time is that deduced immediately from the Sun, whether from the Observation of his passing the Meridian, from his Altitude observed at a Distance from the Meridian, or from his observed Rising or Setting. This Time is different from that shewn by Clocks and Watches well regulated at Land, which is called equat. or mean Time. This will be explained when we come to treat of the Equation of Time.

The Day is here supposed, according to the Method of Astronomers, to begin at Noon, or 12 Hours later than the civil Day of the same Denomination, and to be counted up to 24 Hours, or the succeeding Noon, when the next Day begins. Thus the Day of the Month and the Hour of the Day are the same in this Method as in the civil Account at Noon; and from Noon till Midnight; but from Midnight till Noon they differ;

differ; for whereas in the civil Account a fresh Day is supposed to begin at Midnight, and the Hours to begin over again, in this Method the Day is still continued beyond Midnight, and the Reckoning of the Hours is continued up to 24: Thus the Distances put down to January 10, 15 Hours, belong to January 11 at Three in the Morning by civil Reckoning.

There are 12 Pages for every Month. The first Column of the first Page of each Month contains the Day of the Month; the Second, the Day of the Week expressed concisely by the initial Letter or Letters; *Su.* standing for Sunday, *M.* for Monday, *Tu.* for Tuesday, *W.* for Wednesday, *Th.* for Thursday, *F.* for Friday, and *Sa.* for Saturday: The third Column exhibits the Sundays and Festivals of the Church of England, and other remarkable Days: The last Column shews at Top the Moon's Phases, or the Times of new and full Moon, and of the first and last Quarter, or two Quadratures with the Sun: Beneath are contained miscellaneous Phenomena, namely, Eclipses of the Sun and Moon, and Occultations of Planets or fixed Stars not less than the fourth Magnitude, by the Moon; as they should happen at Greenwich by the Tables; the Conjunctions of the Moon with all Stars not less than the fourth Magnitude, which can be Occultations any where on the Globe, between the Latitudes of 60° . North and 40° . South: The Conjunctions, Oppositions and Quadratures of the superior Planets with the Sun; and the Conjunctions and greatest Elongations of the inferior Planets from the Sun, the Entrance of the Sun into the several Signs, and any other remarkable Phenomena.

The Stars are expressed by Bayer's Characters of Reference. The Conjunction of the Moon or a Planet with a Star, is denoted by prefixing the Character of the Moon or Planet to that of the Star, the Time of the Conjunction being placed immediately after. The Case is the same with Respect to the Occultation of a Star or Planet by the Moon, only this is further distinguished by the Addition of *Im.* or Immersion, to signify the Disappearance behind the Moon; and *Em.* or Emission, to signify the Re-appearance of the same. Thus $8^d \text{ } \textcircled{p} \text{ } \textcircled{v}$ $16^h. 22'$. signifies that the Moon will be in Conjunction with the Star \textcircled{v} on the Eighth Day at $16^h. 22'$. exclusive of Parallax: And $10^d. \textcircled{p} \text{ } \textcircled{II}$ *Imm.* $9^h. 14'$. *Em.* $10^h. 23'$ signifies that the Moon will eclipse \textcircled{II} on the 10th Day, the Immersion being at $9^h. 14'$. and at $10^h. 23'$. apparent Time at Greenwich.

The

The Occultations set down are those only visible at Greenwich; and the Circumstances will not differ very widely in most Parts of the Kingdom; but in very distant Places they will differ very much, owing to the Change of the Moon's Parallax, or it may become no Occultation at all: The like may be said of Eclipses of the Sun.

Eclipses of the Sun, and Occultations of fixed Stars by the Moon, if observed in Places whose Latitude and Longitude are well determined, may be applied to the Correction of the lunar Tables; but if made in Places whose Latitude only is well known, may be applied to the Determination of the Longitude of the Place; but for this Purpose an accurate Calculation must be made of the Moon's Parallaxes in Longitude and Latitude, which makes this Method of settling the Longitudes of Places, though a very accurate one, less convenient in Use for Persons not much versed in astronomical Calculations. However, this ought not to discourage Travellers or Mariners from endeavouring to make these Observations as often and as carefully as possible, when they shall happen to be at any Place whose Longitude they have Reason to think has not been at all or but indifferently determined; since the necessary Calculations may be made at any Time afterwards by themselves, at leisure, or referred to the Skill of Astronomers and Mathematicians.

Eclipses of the Moon are not liable to this Inconvenience; the Longitude of any Place, where an Eclipse has been observed, being deduced immediately by taking the Difference of the Time of the Observation and that set down in the Ephemeris, and converting it into Degrees, at the Rate of 15 to One Hour, &c. or more briefly by Table Pages 6, 7, 8. of the Tables requisite to be used with the Ephemeris. But as the Beginning or Ending of an Eclipse of the Moon cannot be generally observed nearer than One Minute, and sometimes Two or Three Minutes of Time, the Longitudes of Places cannot be certainly determined by this Method from a single Observation of the Beginning or End nearer than a Degree. It is unnecessary to mention that even this Point of Exactness will often be of great Service. If both the Beginning and End of the Eclipse be observed, a considerably greater Degree of Exactness will be attained.

The Conjunctions of the Moon with the Planets, or fixed Stars not less than the fourth Magnitude, which may prove Occultations in some inhabited Parts of the Globe, are evidently designed to instruct Mariners or Travellers to look out

frequently for such Observations; which if they happen to prove Occultations, and are carefully observed, will afford a certain Means of determining the Longitude of the Place of Observation.

The Days of the Oppositions, Quadratures, &c. of the Planets with Respect to the Sun, are Times at which they ought to be observed in fixed Observatories, for settling the Elements of their Orbits by a Series of several Years Observations.

The Two first Columns of the Second Page of the Month contain the Day of the Month and Week as before; next follow the Sun's Longitude, right Ascension in Time, Declination, and the Equation of Time, with the Difference from Day to Day.

The Longitude of the Sun is made use of in most of the succeeding Calculations of the Ephemeris, and may serve either to verify them, or to make other similar Calculations at a different Time of the Day. Particularly it may serve with the Help of the Moon's Longitude, to find the Distance of the Moon from the Sun at any Time, independent of the Distances contained in the Four last Pages of the Month. To find the Sun's Longitude at any Time different from Noon, Proportion must be made according to its daily Increase; Saying as 24^h is to the Hour from Noon reckoned by the Meridian of Greenwich, so is the daily Variation of the Sun's Longitude, to a fourth Number; which added to the Sun's Longitude at the preceding Noon, gives the true Longitude at the given Time.

If the Time given be that of a Meridian different from Greenwich, it must be first reduced thereto, by adding or subtracting the Difference of Longitude turned into Time (at the Rate of One Hour to 15° , and One Minute of Time to 15 Minutes, or more briefly by Pages 6, 7, and 8, of the requisite Tables) according as the Place is to the West or to the East of Greenwich. Example: Suppose any one should want to know the Sun's Longitude, January 19, 1767, at $4^h. 35'$ being in $21^\circ 15'$ Longitude East of Greenwich. The Difference of Longitude turned into Time by Table Page 6, is $1^h. 25'$ which subtracted from $4^h. 35'$, because the Place is East of Greenwich, leaves $3^h. 10'$ for the Time reduced to the Meridian of Greenwich. The Sun's Longitude the preceding Noon is, $9^\circ. 29'. 18''. 2'''$. and the following Noon is, $10^\circ. 0'. 19'. 4'''$. the Difference is, $1^\circ. 1'. 2''$. or $61'. 2'''$. the daily Variation. Then say, as 24^h is to $3^h. 10'$. so is $61'. 2'''$ to $8'. 3'''$. which added to $9^\circ. 29'. 18''. 2'''$. the Sun's Longitude the preceding

preceding Noon, gives $9^{\circ}.29'.26''.5''$ the Sun's Longitude at the Time given. In like Manner any other of the following Articles is to be found by the Help of the Ephemeris.

The Sun's Longitude serves also to compute the Aberration of the fixed Stars and Planets.

The Sun's right Ascension in Time is useful to the practical Astronomer in regular Observatories, who adjusts his Clocks by sidereal Time. It is also useful to him for converting apparent into sidereal Time; as suppose that of an Eclipse of Jupiter's Satellites, in order to know at what Time it may be expected to happen by his Clocks: For this Purpose, the Sun's right Ascension at the preceding Noon, together with the Increase of right Ascension from Noon, must be added to the apparent Time of the Phenomenon set down in the Ephemeris.

The Sun's right Ascension in Time serves also to compute the apparent Time of a known Star's passing the Meridian: Thus subtract the Sun's right Ascension in Time at Noon from the Star's right Ascension in Time, the Remainder is the apparent Time of the Star's passing the Meridian nearly; from which the proportional Part of the daily Increase of the Sun's right Ascension for this apparent Time from Noon being subtracted, leaves the correct Time of the Star's passing the Meridian.

Hence the apparent Time may be found from an observed Altitude of a known fixed Star, suppose one contained Page 12 or 13 of the requisite Tables; as will be explained hereafter.

The Sun's right Ascension in Time is also useful for computing the Time of the Moon and Planets passing the Meridian, as will be shewn under their proper Articles.

The Sun's Declination is necessary to find the Latitude, whether at Sea or Land, from the Meridian Altitude observed; it is also requisite for finding the Latitude from Two Altitudes observed with the Interval of Time measured by a Watch; it serves for computing the Sun's Azimuth, having his Altitude and the Latitude of the Place given, in order to find the Variation of the Compass; it is required jointly with the Latitude of the Place and the Sun's horary Angle to compute his Altitude, if neglected to be observed at the Time of taking the Moon's Distance from the Sun for finding the Longitude, being useful to facilitate the Calculation of the Effect of Refraction and Parallax upon the Distance; it is also necessary to calculate the apparent Time from an observed Altitude of the Sun at a Distance
from

from the Meridian, the Latitude being given; or to compute the Time of the Sun's Setting or Rising; which, though a less accurate Method than the former of obtaining the Time, may yet be useful when that cannot be had. For any of these Purposes, the Sun's Declination must be found to the Time given nearly reduced to the Meridian of Greenwich, making Proportion according to the daily Increase or Decrease, in like Manner as was shewn with Respect to the Sun's Longitude.

The Equation of Time is a Correction, which added to or subtracted from the apparent Time (according to its Title at the Top of the Column) gives equated or mean Time, or that which should be shewn by a good Clock or Watch. Apparent Time is that which takes its Beginning from the Passage of the Sun's Centre over the Meridian of any Place; and had the Sun no Motion in the Ecliptic, or was his Motion reduced to the Equator or in right Ascension uniform, he would always return to the Meridian after equal Intervals of Time. But his apparent Motion in the Ecliptic being continually varying, and his Motion in right Ascension being rendered further unequal on Account of the Obliquity of the Ecliptic to the Equator, from these Causes it arises that the Intervals of his Return to the Meridian become unequal, and the Sun will gradually come too slow or too soon to the Meridian for an equable Motion, such as that of Clocks and Watches ought to be.

This Retardation or Acceleration of the Sun's coming to the Meridian is called the Equation of Time, and is contained in the last Column but One of Page 2d; and when applied according to its Title to the Apparent Time, or that deduced immediately from the Sun, gives the mean or equated Time, whence the Error of a Clock or Watch may be found, and, if required, it may be corrected.

If it is proposed to convert mean Time into apparent, this is done by a contrary Process, by applying the Equation of Time to the mean Time given, with its Title or Sign changed; viz. subtracting instead of adding, and adding instead of subtracting.

The Equation of Time being set down in the Ephemeris for the Noon at Greenwich, Proportion must be made according to the daily Difference, to find what it should be at any given Time reduced to the same Meridian, as in the preceding Articles. The last Column of this Page, containing the daily Differences of the Equation, is designed for this Purpose.

As

As often as it may be required to make any Calculations from astronomical Tables, and the Time given be apparent Time; it is necessary first to apply the Equation of Time thereto to convert it into mean Time, the Tables being disposed according to mean Motions. Thus the Articles contained in the Ephemeris answering to Noon were computed to 0^h . increased; or 24 Hours diminished, by the Equation of Time: And the Moon's Places set down for Midnight were computed to 12^h . increased or diminished by the Equation of Time.

What has been shewn concerning the Equation of Time chiefly respects the Astronomer, the Mariner having little to do with it in computing his Longitude from the Moon's Distances from the Sun and Stars observed at Sea with the Help of the Ephemeris, all the Calculations thereof being adapted to apparent Time, the same which he will obtain by the Altitudes of the Sun or Stars in the Manner hereafter prescribed.

But if Watches made upon Mr. John Harrison's or other equivalent Principles should be brought into Use at Sea, the apparent Time deduced from an Altitude of the Sun must be corrected by the Equation of Time, and the mean Time found compared with that shewn by the Watch, the Difference will be the Longitude in Time from the Meridian by which the Watch was set; as near as the Going of the Watch can be depended upon.

The Equation of Time was computed for the Ephemeris of 1767 from the Table, Page 3d of Mayer's Tables; but on Account of that Table being made only to the nearest Second without Decimals, and the Neglect of the small Equations of the Sun, the Calculations of that Article in the Year 1767, cannot always be depended upon nearer than Two Seconds. For the Year 1768 and the following Years it will be computed in the strict Manner explained in my Remarks upon that Subject, in the *Philos. Transact.* Vol. liv. P. 342 for the Year 1764; namely, by taking the Difference of the Sun's true right Ascension, and his mean Longitude corrected by the Equation of the Equinoxes in right Ascension, and turning it into Time at the Rate of $1'$. to $15'$. *Sec.* The Equation of Time will be additive or subtractive as the Sun's true right Ascension is greater or less than his mean Longitude.

The Semidiameter of the Sun, Page 3d, is necessary to reduce the observed Altitude of his upper or lower Limb to that
of

of the Centre; also to reduce the observed Distance of the Moon's nearest Limb from the Sun's nearest Limb to the Distance of the Centres. It is also useful to Astronomers to verify or ascertain the Exactness of the Scale of their Micrometers, by Comparison with the Measure of the Sun's horizontal Diameter. This Practice is particularly useful in solar Eclipses, when the Distance of the Cusps or the Verse Sine of the uneclipsed Part has been measured with the Micrometer. The Semidiameters of the Sun in Mayer's Tables, on which all the Calculations respecting the Sun and Moon are made, suppose the Semidiameter at the mean Distance to be $16'. 2'' . 8$. which Mr. Mayer says he deduced from above 130 Observations taken with his Six Foot mural Quadrant, which seemed to him not ill adapted to the Purpose. It may not be amiss to take this Opportunity to remark that the Quadrant here mentioned was given to the University of Göttingen by his late Majesty, and was made by Mr. John Bird after the Model of the Eight Foot mural Arch, which he finished for the Royal Observatory at Greenwich, and put up there in the Year 1750. Mr. Mayer made his Observations with his Six Foot mural Arch, from the Year 1756, to the Time of his Decease; with it he settled the mean Obliquity of the Ecliptic to the Beginning of the Year 1756, at $23^{\circ} . 28' . 16''$. which Dr. Bradley settled by his Observations made in the Years 1750 and 1751, at $23^{\circ} . 28' . 18''$. The Difference is agreeable to what ought to arise from the gradual Diminution of the Obliquity of the Ecliptic at the Rate of about $\frac{1}{2}$ a Second in a Year. The same Instrument he also used in settling the Elements of his solar Tables; and it is most probable that with the same he settled his Table of Refractions at the End of his solar Tables; the Agreement of this Table with Dr. Bradley's, see Page 2d of requisite Tables, (being both suited to the same Temperature of the Air) is so great, that they seem rather like One and the same than Two different Tables.

The Time of the Sun's Semidiameter passing the Meridian, serves to reduce an Observation of a Transit of the preceding or subsequent Limb over the Meridian to that of the Centre, when only One was observed. It signifies a Portion of apparent Time, or even mean Time, the Difference being absolutely insensible upon so small an Interval. It is found thus: Increase the Sun's Semidiameter in the Ratio of the Cosine of his Declination to the Radius, to find his Semidiameter in right Ascension, which turned into Time at the Rate of $1'$. to $15'$. and $1''$. to $15''$. gives the
Time

Time required. The Sun's Semidiameter in right Ascension is readily found by adding the Log. Cosine of his Declination to the logistic Logarithm of his Semidiameter, the Sum is the logistic Logarithm of his Semidiameter in right Ascension; which divided by 15 gives the Time of his Semidiameter passing the Meridian. If the Clock by which the Observation is made be regulated according to sidereal Time, this Quantity must be increased in the Ratio of .365 to 366, if great Precision is required.

From the Time of the Sun's Semidiameter passing the Meridian may be also found the Time of its passing the horizontal or vertical Wire of a Quadrant or Sextant, which on some Occasions may have its Use.—The hourly Motion of the Sun is useful in computing solar and lunar Eclipses; also in correcting the assumed Longitude of the Ship, in order to find the Time from an Observation of the Distance of the Moon from the Sun, independant of the Distances contained in the nautical Ephemeris; See British Mariner's Guide, Page 49, and Table at the End of the same, Page 25, which is also copied at Page 14 of requisite Tables. The Logarithm of the Sun's Distance is useful in the Calculation of the Places of the Planets and Comets. The Place of the Moon's Node signifies its mean Longitude, and is necessary for finding the Equation of the equinoctial Points both in Longitude and right Ascension, the Equation of the Oblliquity of the Ecliptic, and the Deviations of the fixed Stars in right Ascension and Declination.

The Eclipses of Jupiter's Satellites are well known to afford the readiest, and for general Practtice the best Method of settling the Longitudes of Places at Land; and it is by their Means principally that Geography has been so much reformed within a Century past, and the Position of the most distant Places determined to equal Accuracy with the nearest. It was hoped that some Means might be found of using proper Telescopes on Shipboard to observe these Eclipses, and could this be effected, it would be of great Service in ascertaining the Longitude of a Ship from Time to Time. In my Voyage to Barbadoes under the Direction of the Commissioners of Longitude, I made a full Trial of the late Mr. Irwin's Marine Chair proposed for this Purpose, but found it totally impracticable to derive any Advantage from the Use of it; and, considering the great Power requisite in a Telescope for making these Observations well, and the Violence as well as

Irregularities of the Motion of a Ship, I am afraid the complete Management of a Telescope on Shipboard will always remain among the Desiderata. However, I would not be understood to mean to discourage any Attempt founded upon good Principles to get over this Difficulty.

The Telescopes proper for observing the Eclipses of Jupiter's Satellites, are common refracting Telescopes, from 15 to 20 Feet, reflecting Telescopes of 18 Inches or Two Feet, and Telescopes of Mr. Dollond's Construction with Two Object Glasses from Five to 10 Feet; or, which are still more convenient, those of $3\frac{1}{2}$ Feet, which he has lately found a Method of constructing with Three Object Glasses, which are as manageable as reflecting Telescopes, and perform as much as those which he makes of 10 Feet with Two Object Glasses.

The Eclipses of Jupiter's Satellites are observed by Astronomers at Land, as well in order to provide Materials for improving the Theories and Tables of their Motions, as for the sake of Comparison with the corresponding Observations which may be made by Persons in different Parts of the Globe, whereby the Longitude of such Places will be accurately ascertained. It is indeed to be lamented that Persons who visit distant Countries are not more diligent to multiply Observations of this Kind, for want of which, the Observations made by Astronomers on Shore lose Half their Use, and the Improvement of Geography seems to be at a Stand. But it is to be hoped that an Emulation will spring up among those who may have Opportunities of rendering so useful a Service to the Public, to incite them to watch diligently for the Occasions of observing these Eclipses carefully, particularly of the First and Second, which are most exact for the Purpose. The Eclipses carefully calculated and set down in the Ephemeris, will serve to advertise them and Observers in general of the Times when they should attend to these Observations. The Person who shall be under any Meridian different from Greenwich, must turn his Difference of Longitude into Time: See Table Page 6, 7, and 8, and add it to or subtract it from the Time of the Eclipse set down in the Ephemeris, according as he is to the East or West of Greenwich, to find the apparent Time at which the Eclipse will happen at his Meridian, nearly. He must further take care to regulate his Watch or Clock by apparent Time, or at least to know the Difference, as well in order to apprise him of the Time to look out for
the

the Eclipse, as for ascertaining the apparent Time exactly at which he shall observe it. Equal Altitudes of the Sun or Stars taken with an astronomical Quadrant afford the best Means of regulating Clocks and Watches for occasional Observations; or they may be taken with a Hadley's Quadrant, by Reflection from a Basin of Water or Quicksilver, or from the Horizon of the Sea, if the Observer has an open Prospect, and is not elevated above 5 or 600 Feet above the Level of the Sea. But, if Opportunity does not admit of taking equal Altitudes, the Time may be determined from One Altitude taken in any of the Methods above mentioned, at least Two or Three Points of the Compass distant from the Meridian, but the nearer to the East or West the better, the Latitude of the Place being known, or being found by Observations of the Meridian Altitude of the Sun or Stars made on Purpose. It will be better to take several Altitudes in order to take a Mean of the Results for greater Certainty. The Manner of computing the apparent Time from the Altitude of the Sun or a Star, will be observed when we come to treat of the Method of finding the Longitude by the Observations of the Distance of the Moon from the Sun and Stars by the Help of the Ephemeris.

The Observer being in a Place whose Longitude is well known, should be settled at his Telescope Three Minutes before the expected Time of an Immersion of the first Satellite; Six or Eight Minutes before that of the second and third Satellites; and a Quarter of an Hour or more before that of the fourth Satellite; chiefly on Account of the Uncertainty of their Theories; but, if the Longitude of the Place is very uncertain, he must begin to look out for the Eclipse proportionably sooner: Thus if the Longitude of the Place is uncertain to 30 Degrees, answering to 12 Minutes of Time, he ought to fix himself to his Telescope 12 Minutes sooner than is mentioned above. Nevertheless when he has observed One Eclipse of any Satellite, and thereby found the Error of the Tables, he may allow the same Correction to the Calculations of the Ephemeris for several Months, which will advertise him very nearly of the Time of expecting the Eclipses of the same Satellite, and dispense with his attending so long.

The Immersions signify the Instant of the Disappearance of the Satellite by entering into the Shadow of Jupiter; and the Emergions signify the first Instant of its Appearance at com-

ing out of the same. They generally happen when the Satellite is at some Distance from the Body of Jupiter, except near the Opposition of Jupiter to the Sun, when the Satellite approaches nearer to his Body. Before the Opposition of Jupiter to the Sun the Immersions and Emerfions happen on the West Side of Jupiter, and after the Opposition on the East Side; but if an astronomical Telescope be used, which reverses Objects, the Appearances will be directly the contrary. Before the Opposition, the Immersions only of the first Satellite are visible; and after the Opposition, the Emerfions only. The same is generally the Case with respect to the second Satellite; both the Phenomena of the same Eclipse are frequently observable in the Two outer Satellites. The Immersions and Emerfions marked with an Asterisk in the Ephemeris are those visible at Greenwich.

To know if an Eclipse will be visible in any Place, find if Jupiter is 8° , or 10° . above the Horizon of the Place, and the Sun as much below it. This may be done near enough by a celestial Globe: Otherwise, the Time of the Sun's Rising and Setting may be found for any Latitude by a Table of semi-diurnal Arcs, contained in the popular Book called the Mariner's Compass Rectified, and many other Books; the Time of Jupiter's Rising and Setting may also be found from the Time of his passing the Meridian and Declination set down in the Ephemeris, with the Help of the same Table of semi-diurnal Arcs; adding or subtracting the semi-diurnal Arc answering to the same Declination of the Sun: Remembering always that if Jupiter's Declination and the Latitude of the Place are of the same Denomination, the semi-diurnal Arc will be more than Six Hours, and if they are of contrary Denominations, it will be less than Six Hours.

The Immersion or Emerfion of any Satellite being carefully observed in any Place according to apparent Time, the Longitude from Greenwich is found immediately by taking the Difference of the Observation from the corresponding Time shewn in the Ephemeris, which must be turned into Degrees, &c. by Table Page 6, 7, and 8; and will be East or West of Greenwich, as the Time observed is more or less than that of the Ephemeris.

Example: Suppose an Emerfion of the first Satellite should be observed at the Cape of Good-Hope, May 9, 1767, at $19^{\text{h}} 46', 45''$. apparent Time: The Time by the Ephemeris being

being $9^h. 33'. 12''$. the Difference is $1^h. 13'. 33''$. whence by Table Page, 6, 7, and 8, the Longitude of the Cape should be $18^{\circ}. 23' 15''$. East of Greenwich, because the Time supposed to be observed at the Cape is more than that of the Ephemeris.

It may not be useless here to observe that the Longitude of the Cape of Good Hope $1^h. 13'. 33'' = 18^{\circ}. 23'. 15''$. set down in the British Mariner's Guide, is that of the Town; the Latitude also belongs to the same; being both determined from the Observations of Messrs. Mason and Dixon, who went thither under the Direction of the Royal Society, and observed the Transit of Venus in the Year 1761. Hence, by the Help of the Charts, I find the Longitude of the Cape Point or Promontory $18^{\circ}. 45'$. East of Greenwich, and its Latitude $34^{\circ}. 30'$. S. the Longitude of Cape Falso, $19^{\circ}. 15'$. E. and its Latitude $34^{\circ}. 34'$ S. If these Determinations of the Situations of the Cape Point and Cape Falso are in any respect uncertain, it arises from the Imperfection of the Charts I was obliged to make use of, in reducing the Longitude and Latitude from the Cape Town to the Two mentioned Points: For from the near Agreement of the Abbé de la Caille's Observations with those of Messrs. Mason and Dixon, it is probable that the Situation of few Places is better determined than that of the Cape Town: But if any one has Possession of any Manuscript or printed Charts of these Parts that he thinks may be depended upon, or has any Opportunity of determining the Points in Question relatively to each other from the Comparison of several Journals of Ships, he may perhaps fix these Places with more Certainty than is here pretended to.

It is to be observed that a correspondent Observation of an Eclipse of a Satellite of Jupiter, made under a well known Meridian, is to be preferred to the Calculations of the Ephemeris for comparing with an Observation made in a Meridian whose Longitude is required; but if no corresponding Observation can be obtained, as is frequently the Case, it will be best to find what Correction the Calculations of the Ephemeris require by the nearest Observations to the given Time that can be obtained; which Correction applied to the Calculation of the given Eclipse in the Ephemeris, renders it almost equivalent to an actual Observation.

The Longitudes and Latitudes of the Planets, Page 4, serve to know where to look for them in the Heavens, and when

when their Places may be conveniently settled by comparing them with fixed Stars by the Help of a Micrometer in a Telescope. They also shew when they are in the most important Points of their Orbits, where it is most material to observe them. They also serve to enable Persons less skilled to distinguish them from the fixed Stars. Their Declinations and apparent Time of passing the Meridian are particularly useful to Astronomers who are furnished with Quadrants and Transit Instruments well fixed in the Meridian, in setting their Instruments for observing their right Ascensions and Declinations.

The apparent Time of a Planet's passing the Meridian may be computed thus; the Planet's right Ascension being calculated from its Longitude and Latitude, and turned into Time, subtract the Sun's right Ascension at Noon in Time from it, to find the Time of the Planet's passing the Meridian nearly, which call T; take the Difference of the ☉ and Planets daily Variations in right Ascension in Time; if the Planet is progressive in right Ascension, or the Sum if it is retrograde, which call X; then say, by the Rule of Proportion;

As $24^h \mp X: T:: X: e$ and $T \pm$ will be the correct Time of the Planet's passing the Meridian. The upper Signs are to be used both to X and e if the Planet's progressive Motion in right Ascension be greater than that of the Sun; in any other Case the lower Signs are to be made use of.

But perhaps it may be found more readily by continual Approximation as follows: Take the proportional Part of the Difference or Sum of the ☉ and Planet's daily Motion in right Ascension, answering to the Time of the Planet's passing the Meridian, found nearly, in Proportion to 24^h . and take a further like proportional Part of this proportional Part; and again of this last, and so on as far as is necessary. The Sum of all these proportional Parts added to the Time of the Planet's passing the Meridian found nearly, if the Planet's progressive Motion in right Ascension is greater than that of the Sun, otherwise subtracted, gives the apparent Time of the Planet's passing the Meridian.

Example: Let it be required to find the Time of the Moon's passing the Meridian, July 1 1767.

The Sun's right Ascension in Time July 1st is, $6^h. 40'. 25''$, and July 2d, $6^h. 44'. 33''$. by the Ephemeris. Therefore his daily Motion in right Ascension is $4'. 8''$. The Moon's right Ascension July 1st at Noon by the Ephemeris, is $159^\circ. 21'$. answering to $10^h. 36'. 8''$. of Time, and July 2d is, $169^\circ. 39'$. an-
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Answering to $10^h. 18'. 36''$. The Difference is, $42'. 28''$. of Time, from which $4'. 8''$. being subtracted leaves $38'. 20''$. Subtract $6^h. 40'. 25''$. the Sun's right Ascension July 1st, at Noon from $10^h. 36'. 8''$. the Moon's right Ascension the same Noon, the Remainder $3^h. 55'. 43''$. is the Approximate Time of the Moon's passing the Meridian. The proportional Part of $38'. 20''$ answering to this, is $6'. 17''$ and the proportional Part of $6'. 17''$. is $9''$; therefore $6'. 17''$ and $9''$ or $6'. 26''$ added to $3^h. 55'. 43''$ give $4^h. 2'. 9''$, the apparent Time of the Moon's passing the Meridian. In the Ephemeris it is $4^h. 2'$. It may also be computed by taking the Difference of the Moon's right Ascensions at Noon and Midnight, but then half the Sun's daily Variation in right Ascension must be made use of, and Proportion must be made for 12 instead of 24 Hours: And if the Moon passed the Meridian after Midnight, the Sun's right Ascension at Midnight must be used, which is a Mean between his right Ascensions on the preceding and subsequent Noon. For the Planet's, it will be sufficient to take the first proportional Part only.

The Configurations of Jupiter's Satellites, Page 5, exhibit the apparent Positions of the Satellites with respect to each other, and to Jupiter at such an Hour of the Evening or Night as they are most likely to be observed, and serve to distinguish the Satellites from one another. Jupiter is distinguished by the Mark \odot , and the Satellites by Points with Figures annexed, the Figure 1 signifying the first Satellite, 2 the second Satellite, &c. When the Satellite is approaching towards Jupiter, the Figure is put between Jupiter and the Point; and when the Satellite is receding from Jupiter, the Figure is put on the other Side of the Point. The Satellites are in the superior Parts of their Orbits, or furthest from the Earth, when they are marked to the right Hand or West of Jupiter approaching him; or to the left Hand or East of Jupiter receding from him; but are in the inferior Part of their Orbits, or nearest to the Earth, when they are marked to the right Hand or West of Jupiter receding from him, or to the left or East of Jupiter approaching him. The Cypher 0 sometimes annexed to the Figure of the Satellite towards the Margin, signifies that it is invisible on the Face of Jupiter; and the black Mark \bullet , signifies that it is invisible, being eclipsed in Jupiter's Shadow, or behind Jupiter, and eclipsed by his Body.

The 7th and 5 following Pages of each Month contain the Moon's Place, and all the Circumstances relating to her Motions,

The Moon's Latitude July 16 at Midnight being $4^{\circ} 49'$, $36''$. N. and the Motion in the next 12 Hours being $13'$, $50''$. say by Proportion;

As 12^h . is to 4^h , $22'$, $16''$. so is $13'$, $50''$. to $5'$, $2''$; but this must be corrected by adding $33''$. the Correction from Page 11, answering to the Hour 4^h , $22'$. and the Mean Second Difference $4'$, $40''$, because the first Differences are decreasing, or rather because the first of them $18'$, $26''$. is greater than the last of them $9'$, $6''$. therefore the proportional Part corrected is $5'$, $2''$. + $33''$ = $5'$, $35''$, which added to $4^{\circ} 49'$, $36''$. gives $4^{\circ} 55'$, $11''$. N. the Moon's Latitude correct.

Remarks on some Circumstances necessary to be attended to, in order to obtain and apply the Correction of second Differences rightly in computing the Moon's Latitude.

I. If the Moon's Latitude taken out of the Ephemeris for Noon and Midnight changes its Denomination from North to South or from South to North, the Sum of the Two Latitudes of contrary Denominations, where the Change happens, is to be accounted the first Difference in that Place.

II. If the Three first Differences first increase and then decrease, or vice versa, first decrease and then increase, Half the Difference of the Two second Differences is to be taken for the mean second Difference.

III. If the Series of Four Latitudes taken out should first increase and then decrease about the Moon's greatest Latitudes, take the Sum of the Two first Differences standing on each Side of the greatest Latitude for the second Difference in that Place; correct the Moon's Latitude at Noon or Midnight by the simple proportional Part first found; and to the Latitude so corrected, add always in this Case the Correction from Table Page 11, answering to the Mean of the Two second Differences.

Before I quit this Subject of Interpolation by second Differences, I shall point out another Method, by which the same End may be obtained more readily, and with fewer Rules, by those who are well acquainted with algebraical Subtraction and Addition, and the Manner of applying the Signs in those Operations. Subtract each Latitude from the following for the first Differences, to which prefix the Sign— if the Latitudes decrease; and subtract each first Difference, thus found, from the following one of the same Order for the second Differences. Half the Sum of the Two second Differences

ferences standing on each Side of the Interval to be interpolated, is to be accounted the mean second Difference; the Correction corresponding to it by Table Page 11, is to be applied always with the contrary Sign.

These Operations are to be performed, and the Signs to be applied as in algebraic Subtraction and Addition. Note further, if the Four given Latitudes change their Denomination, call the second Latitude +, and those of a contrary Denomination —.

The Moon's Declination may be found at any Hour in the same Manner as her Latitude; but as the Correction arising from second Differences will never exceed $2\frac{1}{2}'$, this may be neglected on most Occasions: but if any one is desirous to obtain the Declination true to a Minute, the Correction is easily applied, as shewn above.

The other Articles of Page 7, and 8, viz. the Moon's right Ascension, her Semidiameter, horizontal Parallax, with its Logarithm, and the Distances contained in the Four last Pages of the Month, may be all found correctly by even Proportion, without requiring any Allowance on Account of second Differences. The proportional Part of the Moon's Longitude, &c. for any Hour, may be found very readily by the Help of the Table of proportional Logarithms at the End of the requisite Tables: For which consult the Explanation of those Tables.

The Moon's Longitude and Latitude are used in computing her Distances from the Sun and Stars contained in the Four last Pages of the Month, as well as in the Appulses to Stars pointed out in Page 1, and, jointly with her Parallax and Semidiameter, are necessary for computing the Eclipses of the Sun and Moon, and the Occultations of fixed Stars and Planets by the Moon. They also facilitate the Calculation of the Longitude of any Place from an Eclipse of the Sun, or an Occultation of a Star or Planet by the Moon observed: Or, if the Meridian be well known, the Parallax and Semidiameter serve to deduce the Moon's true Place in the Heavens from the Observation, which compared with that given by the Ephemeris shews the Error of the Tables, whatever it be at that Time. The Moon's Semidiameter and Parallax are applied in correcting almost all Observations of the Moon. The logarithmic Logarithms of the Moon's Parallax, serve further to facilitate the Calculations of Parallaxes, but if the Table of proportional Logarithms at the End of the requisite Tables be made use,

of, which will be most convenient; the constant Quantity 2.4771 must be added to the logistic Logarithms of the Moon's horizontal Parallax contained in the Ephemeris of 1767, to reduce them to proportional Logarithms. It will be more convenient to substitute proportional Logarithms of the Moon's Parallax instead of the logistic Logarithms in a future Ephemeris.

The Moon's right Ascension and Declination are useful to compute her Altitude at any Time, particularly at the Observation of her Distance from the Sun or a Star, supposing it was neglected to be or could not be observed properly; which latter Case may sometimes happen in the Night, though I think but rarely; the utmost Accuracy not being required for the Calculations of Refraction and Parallax. See British Mariner's Guide, Page 57. The Moon's Declination, with her Semidiameter and Parallax, serve for finding the Latitude by the Meridian Altitude of her upper or lower Limb observed at Sea. See British Mariner's Guide, Page 93. The Moon's right Ascension and Declination serve also to compute the Time from her Altitude observed at the Observation of her Distance from a Star; whence the Longitude may be inferred, though no Altitude of the Sun or a Star was taken for regulating the Time. See British Mariner's Guide, Page 61.

The Distances of the Moon from the Sun and fixed Stars, contained in the Four last Pages of the Month, are set down to every Three Hours of Apparent Time by the Meridian of Greenwich, and are designed to relieve the Mariner from the Necessity of a Calculation, which he might think prolix and troublesome, and to enable him, when compared with the same Distances observed carefully at Sea, to infer his Longitude readily and with little Danger of Mistake to a Degree of Exactness that may be thought sufficient for most nautical Purposes. But useful and valuable as the Practice of this Method may be at present, it is a Remark not unworthy our Notice, that there is Room to hope, by future Improvements of the lunar Tables, and the Introduction of a more accurate Method of constructing Instruments, it may be carried to a much higher Degree of Perfection.

The Moon's Distance are computed both from the Sun and proper Stars, and generally from One Object on each Side of her, to afford the Mariner a greater Number of Opportunities of Observation, and a Means of attaining a greater Degree of Exactness. The Distances from the Sun

are computed between 40° and 120° of Distance. While the Moon is between the Distances of 20° and 40° from the Sun, her Distance is computed only from a Star on the contrary Side that the Sun is. When she is between the Distances of 40° and 90° from the Sun, her Distance is computed both from the Sun and from a Star on the contrary Side to the Sun; when the Moon is above 90° from the Sun her Distance is computed from Two Stars, one on each Side of her; though still her Distance is computed also from the Sun from 90° to 120° . Though the Distance of the Moon from the Sun or Star, well observed with a good Instrument, is sufficient to determine the Longitude, with the Help of the Ephemeris, always within a Degree, and generally much nearer, yet it will conduce to still greater Accuracy, if the Observer takes the Distance of the Moon from Two Stars, or the Sun and a Star, or, when the Moon is between 90 and 120° Distance from the Sun, from the Sun and Two Stars, if he can be so lucky as to obtain these several Observations.

The Longitude being computed from the Observations made with each Star respectively, the Mean of the Results is to be taken as probably approaching nearest to the true Longitude. In particular the Moon's Distance should be taken from Two Stars, or the Sun and a Star on each Side of her, as often as Opportunity permits, since the Mean of the Results will probably be at least as exact again as either separately, I mean as far as depends on any Imperfection of the Instruments, and unavoidable small Errors arising in the Use of them; Errors of these Kinds having a natural tendency to correct each other; for that small Error which arises from the lunar Tables will affect the Result from either Star equally. But the Error of Mr. Mayer's last lunar Tables here made use of, scarce ever exceeding $1'$ at the most, and seldom amounting to $20''$. the Uncertainty hence arising in the Determination of the Longitude can scarcely exceed half a Degree, and generally will not exceed 10 Miles.

The Distances set down in the Ephemeris, afford the Observer a ready Means of knowing the Star from which the Moon's Distance is to be observed; for he has nothing to do but to set his Quadrant to the Distance computed roughly from the Ephemeris, neglecting the Seconds, at the apparent Time estimated nearly by the Meridian of Greenwich; and direct his Sight to the East or West of the Moon, according as the Distance at Greenwich is found in Page 9 and

continued to the end of the Table, 10,

18, or in Two last Pages of the Month; and having found the Moon upon the little Speculum, let him give a Sweep with the Quadrant to the Right and Left, and he will find the Star he seeks for, if above the Horizon and the Air be clear, nearly in a Line perpendicular to the Line of the Moon's Horns or longer Axis, or, which is the same Thing, in the Line of the Moon's shorter Axis produced. The Star is always one of the brightest, so that there is little Danger of mistaking another for it, if the preceding Directions are carefully observed. The Time at Greenwich is estimated nearly by turning the supposed Longitude from Greenwich into Time, by Table Page 6, 7, and 8, and adding it to or subtracting it from the Apparent Time at the Ship, as its Longitude is West or East of Greenwich. It will be sufficient if the Distance be computed from the Ephemeris within 10'. or 20'. for setting the Quadrant. The principal Use of the Distances of the Moon from the Sun and fixed Stars; namely, in determining the Longitude by Comparison with the corresponding Distances observed at Sea, will be shewn hereafter in its proper Order, in the Dissertation explaining the Method of computing the Longitude at Sea by the Help of the Ephemeris.

The Distances contained in the Ephemeris were computed strictly to Noon and Midnight, and thence interpolated for every Three Hours, according to the Method shewn for computing the Moon's Latitude, Page 17—19: Except that the Correction of second Differences at the Middle of the Interval to be interpolated, was taken $\frac{1}{4}$ of the Mean of the Two second Differences, and at the first and third Quarter of the Interval was taken $\frac{3}{4}$ of the Correction just found at the Middle of the Interval; instead of consulting Table Page 11, which would however have given the same Result. But, at the first 12 Hours when the Distances of the Moon from a Star begin, and the last 12 Hours when the Distances end, there being only One second Difference instead of Two second Differences on each Side to take a Mean of, this Method fails in these Cases, and therefore the following is to be substituted in its stead, being derived from Sir Isaac Newton's Solution of the Problem of drawing a Curve through the Extremities of any Number of given Ordinates. Phil. Nat. Princ. Math. Page 486. Edit. ult.

From Four Distances at Noon and Midnight computed strictly, to interpolate Three Distances at the 3d, 6th, and 9th Hour of the first or last Interval.

Subtract

Subtract each Distance from the following, for the first Differences, and prefix the Sign —, if the Distances decrease. Subtract each first Difference thus found from the following one of the same Order, for the second Differences: And in like Manner subtract the first 2d Difference from the following for the third Difference; applying the Signs as in algebraic Subtraction. Denote the first or last first Difference by b , the first or last second Difference by c ; according as the Interpolation to be made is for the first or last 12 Hours, denote also the third Difference by d ; and, a being put to signify the Distance at the Beginning of the Interval, the interpolated Distances will be as follows:

At 3d Hour of first Interval	$a + \frac{1}{3}b - \frac{3}{2}c + \frac{7}{12}d$
At 6th Hour of first Interval	$a + \frac{1}{2}b - \frac{1}{2}c + \frac{1}{8}d$
At 9th Hour of first Interval	$a + \frac{2}{3}b - \frac{3}{2}c + \frac{1}{4}d$
Or	
At 3d Hour of last Interval	$a + \frac{1}{3}b - \frac{3}{2}c - \frac{1}{12}d$
At 6th Hour of last Interval	$a + \frac{1}{2}b - \frac{1}{2}c - \frac{1}{8}d$
At 9th Hour of last Interval	$a + \frac{2}{3}b - \frac{3}{2}c - \frac{1}{4}d$

In adapting these Formulæ to Numbers, great Care must be taken about the right Application of the Signs. Thus if b , c or d is Negative, apply the Number expressing the Value of that Term of the Formula where it is found with a contrary Sign to that of the Formula.

Let me add in this Place, that if in filling up the first and last Intervals, a new second Difference has been supposed in arithmetical Progression with the Two given ones, in order to take a Mean between it and the first or last second Difference, the Interpolation at the Middle of the Interval or 6th Hour will be had true, the same as if the above Formulæ had been used: But at the Interpolation of the first and third Quarter there will be an Error of $\frac{1}{12}$ third Difference; which will be corrected, by applying $+\frac{1}{12}d$ or third Difference, to Number found at the first Quarter of the Interval, and $-\frac{1}{12}d$ to that found at the third Quarter of the Interval; equally the same whether it be the first or last Interval.

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WORKS published by the COMMISSIONERS
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I. THE NAUTICAL ALMANACS
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1773.

II. TABLES requisite to be used with the NAUTI-
CAL ALMANAC.

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N. B,

N. B. To the **NAUTICAL ALMANAC** of 1769 are annexed Instructions relative to the Observation of the Transit of Venus over the Sun's Disk on **JUNE 3d, 1769**: And to the **NAUTICAL ALMANAC** of 1771 are added Tables for finding the Latitude from Two observed Altitudes of the Sun, with the Interval of Time, measured by a Watch; and new Tables for computing the Eclipses of Jupiter's Third Satellite: And to the **NAUTICAL ALMANAC** of 1772 are annexed Two Methods for clearing the apparent Distance of the Moon from the Sun or a fixed Star of the Effect of Refraction and Parallax; and the Solution of a Problem in **MERCATOR'S NAVIGATION**: And to the **NAUTICAL ALMANAC** of 1773 is added, A new Table of Equations to equal Altitudes; also, A Catalogue of the Places of 387 Fix'd Stars, in Right Ascension, Declination, Longitude, and Latitude, adapted to the Year 1770, with their Magnitudes and annual Variations in Right Ascension and Declination, calculated from the late Dr. *Bradley's* Observations.

T A B L E
OF THE
E Q U A T I O N S
TO
EQUAL ALTITUDES.



A Table of the Equations to Equal Altitudes. Part I.								
Half Interval between the Observations.								
☉'s Long.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	
	ll. o	ll. 10	ll. 20	ll. 30	ll. 40	ll. 50	ll. o	
S. D.	" "	" "	" "	" "	" "	" "	" "	" "
O —	0 15.47	15.56	16. 5	16. 14	16. 23	16. 33	16. 44	
	5 15.42	15.50	15.59	16. 8	16. 17	16. 27	16. 38	
	10 15.30	15.38	15.47	15.56	16. 5	16. 15	16. 26	
	15 15.12	15.20	15.29	15.37	15.46	15.56	16. 7	
	20 14.48	14.56	15. 4	15. 12	15. 21	15. 31	15. 42	
	25 14.18	14.26	14.33	14. 41	14. 50	15. 0	15. 10	
I —	0 13.43	13.50	13.57	14. 5	14. 13	14. 22	14. 32	
	5 13. 1	13. 8	13. 15	13. 22	13. 30	13. 39	13. 48	
	10 12.14	12.20	12.27	12.34	12.41	12.49	12.58	
	15 11.21	11.26	11.33	11.39	11.46	11.54	12. 2	
	20 10.22	10.27	10.33	10.39	10.45	10.52	11. 0	
	25 9.18	9.23	9.28	9.33	9.39	9.45	9.52	
II —	0 8. 9	8. 13	8. 18	8. 23	8. 28	8. 33	8. 39	
	5 6.55	6.59	7. 3	7. 7	7. 11	7. 16	7. 21	
	10 5.37	5.40	5.43	5.46	5.50	5.54	5.58	
	15 4.16	4.18	4.20	4.23	4.26	4.29	4.32	
	20 2.52	2.53	2.55	2.57	2.59	3. 1	3. 3	
	25 1.26	1.27	1.28	1.29	1.30	1.31	1.32	
III +	0 0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	
	5 1.26	1.27	1.28	1.29	1.30	1.31	1.32	
	10 2.52	2.53	2.55	2.57	2.59	3. 1	3. 3	
	15 4.16	4.18	4.20	4.22	4.25	4.28	4.31	
	20 5.36	5.39	5.42	5.45	5.49	5.53	5.57	
	25 6.53	6.57	7. 1	7. 5	7. 9	7. 14	7. 19	
IV +	0 8. 7	8. 11	8. 15	8. 20	8. 25	8. 30	8. 36	
	5 9.16	9.20	9.25	9.30	9.36	9.42	9.48	
	10 10.19	10.24	10.29	10.35	10.41	10.48	10.55	
	15 11.17	11.22	11.28	11.34	11.41	11.48	11.56	
	20 12. 9	12. 15	12. 21	12. 28	12. 35	12. 43	12. 52	
	25 12.55	13. 2	13. 8	13. 16	13. 23	13. 32	13. 42	
V +	0 13.36	13.43	13.50	13.58	14. 6	14. 15	14. 25	
	5 14.11	14.18	14.26	14.34	14.43	14.52	15. 2	
	10 14.40	14.48	14.56	15. 4	15. 13	15. 23	15. 33	
	15 15. 3	15. 11	15. 19	15. 28	15. 37	15. 47	15. 58	
	20 15.21	15.29	15.37	15.46	15.55	16. 6	16. 17	
	25 15.32	15.40	15.49	15.58	16. 7	16. 18	16. 29	
VI +	0 15.38	15.46	15.54	16. 3	16. 13	16. 24	16. 35	

Multiply the Numbers in this Table by the Tangent of the Latitude of the Place of Observation; which, if South, will change the Sign.

A Table of the Equations, &c. continued. Part I.								
Half Interval between the Observations.								
☉'s Long.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	
	III. 10	III. 20	III. 30	III. 40	III. 50	IV. 0	IV. 10	
S. D.	" "	" "	" "	" "	" "	" "	" "	" "
O — 0	16. 56	17. 10	17. 24	17. 40	17. 56	18. 14	18. 33	
5	16. 50	17. 4	17. 18	17. 34	17. 50	18. 7	18. 26	
10	16. 38	16. 52	17. 6	17. 21	17. 37	17. 54	18. 12	
15	16. 20	16. 33	16. 47	17. 1	17. 17	17. 34	17. 51	
20	15. 54	16. 7	16. 20	16. 34	16. 49	17. 6	17. 23	
25	15. 22	15. 34	15. 47	16. 0	16. 15	16. 31	16. 48	
I — 0	14. 43	14. 55	15. 7	15. 20	15. 34	15. 50	16. 6	
5	13. 58	14. 10	14. 21	14. 34	14. 48	15. 2	15. 17	
10	13. 8	13. 18	13. 29	13. 41	13. 54	14. 8	14. 22	
15	12. 11	12. 21	12. 31	12. 42	12. 54	13. 7	13. 20	
20	11. 8	11. 17	11. 27	11. 37	11. 48	11. 59	12. 11	
25	9. 59	10. 7	10. 16	10. 25	10. 35	10. 45	10. 56	
II — 0	8. 45	8. 52	8. 59	9. 7	9. 16	9. 25	9. 35	
5	7. 26	7. 32	7. 38	7. 44	7. 52	7. 59	8. 8	
10	6. 2	6. 7	6. 12	6. 17	6. 23	6. 29	6. 36	
15	4. 35	4. 38	4. 42	4. 46	4. 51	4. 56	5. 1	
20	3. 5	3. 7	3. 10	3. 13	3. 16	3. 19	3. 22	
25	1. 33	1. 34	1. 36	1. 37	1. 38	1. 40	1. 42	
III + 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	
5	1. 33	1. 34	1. 36	1. 37	1. 38	1. 40	1. 42	
10	3. 5	3. 7	3. 10	3. 13	3. 16	3. 19	3. 22	
15	4. 34	4. 38	4. 42	4. 46	4. 51	4. 56	5. 1	
20	6. 1	6. 6	6. 11	6. 16	6. 22	6. 29	6. 36	
25	7. 24	7. 30	7. 36	7. 43	7. 50	7. 58	8. 6	
IV + 0	8. 42	8. 49	8. 57	9. 5	9. 13	9. 22	9. 32	
5	9. 55	10. 3	10. 12	10. 21	10. 31	10. 41	10. 52	
10	11. 3	11. 11	11. 21	11. 31	11. 42	11. 54	12. 6	
15	12. 5	12. 14	12. 25	12. 36	12. 48	13. 1	13. 14	
20	13. 2	13. 12	13. 23	13. 35	13. 48	14. 1	14. 15	
25	13. 52	14. 3	14. 15	14. 27	14. 41	14. 55	15. 9	
V + 0	14. 36	14. 47	15. 0	15. 13	15. 27	15. 42	15. 57	
5	15. 13	15. 25	15. 38	15. 52	16. 7	16. 22	16. 38	
10	15. 45	15. 57	16. 10	16. 25	16. 40	16. 56	17. 13	
15	16. 10	16. 22	16. 36	16. 51	17. 7	17. 23	17. 40	
20	16. 29	16. 41	16. 55	17. 10	17. 26	17. 43	18. 1	
25	16. 41	16. 54	17. 8	17. 23	17. 40	17. 56	18. 14	
VI + 0	16. 47	17. 0	17. 14	17. 29	17. 45	18. 3	18. 21	

Multiply the Numbers in this Table by the Tangent of the Latitude of the Place of Observation; which, if South, will change the Sign.

A Table of the Equations, &c. conti ued. Part I.

Half Interval between the Observations.

☉'s Long.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
	IV. 20	IV. 30	IV. 40	IV. 50	V. 0	V. 10	V. 20
S. D.	" "	" "	" "	" "	" "	" "	" "
O — 0	18. 53	19. 14	19. 37	20. 1	20. 27	20. 55	21. 24
5	18. 46	19. 7	19. 30	19. 54	20. 19	20. 47	21. 16
10	18. 32	18. 53	19. 15	19. 39	20. 4	20. 31	21. 0
15	18. 11	18. 31	18. 53	19. 16	19. 41	20. 8	20. 36
20	17. 42	18. 2	18. 23	18. 46	19. 10	19. 36	20. 3
25	17. 6	17. 25	17. 46	18. 8	18. 31	18. 56	19. 22
I — 0	16. 23	16. 42	17. 2	17. 23	17. 45	18. 9	18. 34
5	15. 33	15. 51	16. 10	16. 30	16. 51	17. 14	17. 38
10	14. 37	14. 53	15. 11	15. 30	15. 50	16. 11	16. 34
15	13. 34	13. 49	14. 6	14. 23	14. 42	15. 1	15. 22
20	12. 24	12. 38	12. 53	13. 9	13. 26	13. 44	14. 3
25	11. 8	11. 20	11. 34	11. 48	12. 3	12. 19	12. 36
II — 0	9. 45	9. 56	10. 8	10. 21	10. 34	10. 48	11. 2
5	8. 16	8. 26	8. 36	8. 47	8. 58	9. 10	9. 22
10	6. 43	6. 51	6. 59	7. 8	7. 17	7. 27	7. 37
15	5. 6	5. 12	5. 18	5. 25	5. 32	5. 39	5. 47
20	3. 26	3. 30	3. 34	3. 38	3. 43	3. 48	3. 53
25	1. 44	1. 46	1. 48	1. 50	1. 52	1. 54	1. 57
III + 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0
5	1. 44	1. 46	1. 48	1. 50	1. 52	1. 54	1. 57
10	3. 26	3. 30	3. 34	3. 38	3. 42	3. 47	3. 53
15	5. 6	5. 12	5. 18	5. 24	5. 30	5. 38	5. 46
20	6. 43	6. 50	6. 58	7. 6	7. 15	7. 25	7. 35
25	8. 15	8. 24	8. 34	8. 44	8. 55	9. 7	9. 19
IV + 0	9. 42	9. 53	10. 4	10. 17	10. 30	10. 43	10. 58
5	11. 4	11. 16	11. 29	11. 43	11. 58	12. 13	12. 30
10	12. 19	12. 33	12. 47	13. 3	13. 20	13. 37	13. 56
15	13. 28	13. 43	13. 59	14. 16	14. 35	14. 54	15. 15
20	14. 30	14. 46	15. 4	15. 23	15. 43	16. 4	16. 26
25	15. 25	15. 43	16. 2	16. 22	16. 43	17. 5	17. 29
V + 0	16. 14	16. 32	16. 53	17. 14	17. 36	17. 59	18. 24
5	16. 56	17. 15	17. 36	17. 58	18. 21	18. 46	19. 12
10	17. 31	17. 51	18. 12	18. 35	18. 59	19. 25	19. 52
15	17. 59	18. 19	18. 41	19. 4	19. 29	19. 56	20. 23
20	18. 20	18. 41	19. 3	19. 27	19. 52	20. 19	20. 47
25	18. 34	18. 55	19. 18	19. 42	20. 7	20. 34	21. 2
VI + 0	18. 41	19. 2	9. 25	19. 40	20. 14	20. 41	21. 10

Multiply the Numbers in this Table by the Tangent of the Latitude of the Place of Observation; which, if South, will change the Sign.

A Table of the Equations, &c. continued. Part I.

Half Interval between the Observations.

☉'s Long.		H. M.	H. M.	H. M.	H. M.
		V. 30	V. 40	V. 50	V. 1. 0
S.	D.	" "	" "	" "	" "
O —	0	21. 55	22. 27	25. 3	23. 41
	5	21. 47	22. 19	22. 55	23. 33
	10	21. 30	22. 2	22. 37	23. 15
	15	21. 5	21. 37	22. 11	22. 48
	20	20. 32	21. 3	21. 36	22. 12
	25	19. 51	20. 21	20. 53	21. 7
I —	0	19. 1	19. 30	20. 1	20. 34
	5	18. 4	18. 31	19. 1	19. 32
	10	16. 58	17. 24	17. 52	18. 21
	15	15. 45	16. 9	16. 34	17. 1
	20	14. 23	14. 45	15. 8	15. 33
	25	12. 54	13. 14	13. 35	13. 57
II —	0	11. 18	11. 36	11. 54	12. 14
	5	9. 36	9. 51	10. 7	10. 23
	10	7. 48	8. 0	8. 13	8. 26
	15	5. 55	6. 4	6. 14	6. 24
	20	3. 59	4. 5	4. 11	4. 18
	25	2. 0	2. 3	2. 6	2. 10
III +	0	0. 0	0. 0	0. 0	0. 0
	5	2. 0	2. 3	2. 6	2. 10
	10	3. 58	4. 4	4. 10	4. 18
	15	5. 54	6. 2	6. 12	6. 24
	20	7. 46	5. 57	8. 10	8. 25
	25	9. 33	9. 47	10. 3	10. 21
IV +	0	11. 14	11. 31	11. 50	12. 10
	5	12. 49	13. 9	13. 30	13. 52
	10	14. 17	14. 39	15. 2	15. 27
	15	15. 37	16. 1	16. 27	16. 54
	20	16. 50	17. 16	17. 43	18. 12
	25	17. 55	18. 23	18. 52	19. 22
V +	0	18. 51	19. 21	19. 52	20. 23
	5	19. 40	20. 11	20. 43	21. 16
	10	20. 21	20. 52	21. 25	22. 0
	15	20. 53	21. 25	21. 59	22. 35
	20	21. 17	21. 50	22. 25	23. 2
	25	21. 33	22. 6	22. 42	23. 20
VI +	0	21. 41	22. 14	22. 50	23. 28

Multiply the Numbers in this Table by the Tangent of the Latitude of the Place of Observation; which, if South, will change the Sign.

A Table of the Equations, &c. continued. Part I.

Half Interval between the Observations.

☉'s Long.	H. M.		H. M.		H. M.		H. M.		H. M.		H. M.	
	ll.	o	ll.	o	ll.	o	ll.	o	ll.	o	ll.	o
S. D.	"	"	"	"	"	"	"	"	"	"	"	"
VI +	0	15.38	15.46	15.54	16. 3	16.13	16.24	16.35				
	5	15.37	15.45	15.53	16. 2	16.12	16.23	16.35				
	10	15.31	15.39	15.47	15.56	16. 5	16.16	16.28				
	15	15.19	15.26	15.34	15.43	15.52	16. 3	16.14				
	20	15. 0	15. 7	15.15	15.23	15.32	15.43	15.54				
	25	14.35	14.42	14.49	14.57	15. 6	15.16	15.27				
VII +	0	14. 3	14.10	14.17	14.25	14.33	14.43	14.53				
	5	13.25	13.31	13.38	13.46	13.54	14. 3	14.13				
	10	12.40	12.46	12.53	13. 0	13. 8	13.17	13.26				
	15	11.48	11.54	12. 1	12. 8	12.15	12.23	12.31				
	20	10.50	10.55	11. 2	11. 8	11.15	11.22	11.30				
	25	9.45	9.50	9.56	10. 2	10. 8	10.15	10.22				
VIII +	0	8.35	8.39	8.44	8.49	8.55	9. 1	9. 7				
	5	7.19	7.23	7.27	7.31	7.36	7.41	7.46				
	10	5.58	6. 1	6. 4	6. 7	6.11	6.15	6.20				
	15	4.33	4.35	4.37	4.40	4.43	4.46	4.49				
	20	3. 4	3. 5	3. 7	3. 9	3.11	3.13	3.15				
	25	1.33	1.33	1.34	1.35	1.36	1.37	1.38				
IX —	0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0				
	5	1.33	1.33	1.34	1.35	1.36	1.37	1.38				
	10	3. 4	3. 5	3. 7	3. 9	3.11	3.13	3.15				
	15	4.33	4.35	4.38	4.40	4.43	4.46	4.49				
	20	6. 0	6. 3	6. 6	6. 9	6.12	6.16	6.20				
	25	7.22	7.25	7.29	7.33	7.37	7.42	7.47				
X —	0	8.38	8.42	8.47	8.52	8.57	9. 3	9. 9				
	5	9.49	9.54	10. 0	10. 6	10.12	10.18	10.25				
	10	10.55	11. 0	11. 7	11.13	11.20	11.27	11.35				
	15	11.54	12. 0	12. 7	12.14	12.21	12.29	12.37				
	20	12.46	12.53	13. 0	13. 7	13.15	13.23	13.32				
	25	13.31	13.39	13.46	13.54	14. 2	14.11	14.20				
XI —	0	14.10	14.18	14.26	14.34	14.43	14.52	15. 2				
	5	14.42	14.50	14.59	15. 8	15.17	15.27	15.37				
	10	15. 8	15.16	15.25	15.34	15.44	15.54	16. 4				
	15	15.27	15.36	15.45	15.54	16. 3	16.13	16.24				
	20	15.40	15.49	15.58	16. 7	16.16	16.26	16.37				
	25	15.47	15.56	16. 5	16.14	16.23	16.33	16.44				
XII —	0	15.47	15.56	16. 5	16.14	16.23	16.33	16.44				

Multiply the Numbers in this Table by the Tangent of the Latitude of the Place of Observation; which, if South, will change the Sign.

A Table of the Equations, &c. continued. Part I.

Half Interval between the Observations.

☉'s Long.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
	III. 10	III. 20	III. 30	III. 40	III. 50	IV. 0	IV. 10
S. D.	" "	" "	" "	" "	" "	" "	" "
VI + 0	16. 47	17. 0	17. 14	17. 29	17. 45	18. 3	18. 21
5	16. 47	17. 0	17. 14	17. 29	17. 45	18. 3	18. 21
10	16. 40	16. 53	17. 7	17. 22	17. 38	17. 56	18. 14
15	16. 26	16. 39	16. 53	17. 8	17. 24	17. 41	17. 59
20	16. 6	16. 18	16. 32	16. 47	17. 2	17. 19	17. 37
25	15. 39	15. 51	16. 5	16. 19	16. 34	16. 50	17. 7
VII + 0	15. 5	15. 17	15. 30	15. 44	15. 59	16. 14	16. 30
5	14. 24	14. 36	14. 48	15. 1	15. 15	15. 30	15. 46
10	13. 36	13. 47	13. 59	14. 11	14. 24	14. 38	14. 53
15	12. 41	12. 51	13. 2	13. 13	13. 26	13. 39	13. 53
20	11. 39	11. 48	11. 58	12. 8	12. 20	12. 32	12. 45
25	10. 30	10. 38	10. 47	10. 56	11. 6	11. 17	11. 29
VIII + 0	9. 14	9. 21	9. 29	9. 37	9. 46	9. 56	10. 6
5	7. 52	7. 58	8. 5	8. 12	8. 20	8. 28	8. 36
10	6. 24	6. 29	6. 35	6. 41	6. 47	6. 54	7. 1
15	4. 52	4. 56	5. 1	5. 5	5. 10	5. 15	5. 20
20	3. 17	3. 20	3. 23	3. 26	3. 29	3. 32	3. 36
25	1. 39	1. 41	1. 42	1. 44	1. 45	1. 47	1. 49
IX — 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0
5	1. 39	1. 41	1. 42	1. 44	1. 45	1. 47	1. 49
10	3. 17	3. 20	3. 23	3. 26	3. 29	3. 32	3. 36
15	4. 53	4. 57	5. 1	5. 6	5. 10	5. 15	5. 21
20	6. 25	6. 30	6. 36	6. 42	6. 48	6. 55	7. 2
25	7. 53	7. 59	8. 6	8. 14	8. 22	8. 30	8. 38
X — 0	9. 16	9. 23	9. 31	9. 40	9. 49	9. 59	10. 9
5	10. 33	10. 41	10. 50	11. 0	11. 10	11. 21	11. 33
10	11. 43	11. 52	12. 2	12. 13	12. 24	12. 36	12. 49
15	12. 46	12. 56	13. 7	13. 19	13. 31	13. 44	13. 58
20	13. 42	13. 53	14. 5	14. 17	14. 30	14. 44	14. 59
25	14. 31	14. 43	14. 55	15. 8	15. 22	15. 37	15. 53
XI — 0	15. 13	15. 25	15. 38	15. 51	16. 6	16. 22	16. 39
5	15. 48	16. 1	16. 14	16. 27	16. 42	16. 59	17. 17
10	16. 16	16. 28	16. 42	16. 56	17. 11	17. 29	17. 47
15	16. 36	16. 48	17. 2	17. 17	17. 33	17. 51	18. 9
20	16. 49	17. 2	17. 16	17. 32	17. 48	18. 6	18. 24
25	16. 56	17. 9	17. 23	17. 39	17. 56	18. 14	18. 32
XII — c	16. 56	17. 10	17. 24	17. 40	17. 56	18. 14	18. 33

Multiply the Numbers in this Table by the Tangent of the Latitude of the Place of Observation; which, if South, will change the Sign.

A Table of the Equations, &c. continued. Part I.

Half Interval between the Observations.

☉'s Long.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
	IV. 20	IV. 30	IV. 40	IV. 50	V. 0	V. 10	V. 20
S. D.	'' ''	'' ''	'' ''	'' ''	'' ''	'' ''	'' ''
VI + 0	18. 41	19. 2	19. 25	19. 49	20. 14	20. 41	21. 10
5	18. 41	19. 2	19. 24	19. 48	20. 14	20. 41	21. 10
10	18. 33	18. 54	19. 16	19. 40	20. 6	20. 33	21. 1
15	18. 18	18. 38	19. 0	19. 24	19. 50	20. 16	20. 44
20	17. 56	18. 16	18. 37	19. 0	19. 25	19. 51	20. 18
25	17. 26	17. 45	18. 6	18. 28	18. 52	19. 17	19. 44
VII + 0	16. 48	17. 7	17. 27	17. 48	18. 11	18. 35	19. 1
5	16. 2	16. 20	16. 39	16. 59	17. 21	17. 44	18. 9
10	15. 8	15. 25	15. 43	16. 2	16. 23	16. 45	17. 8
15	14. 7	14. 23	14. 39	14. 57	15. 16	15. 37	15. 58
20	12. 58	13. 13	13. 28	13. 44	14. 1	14. 20	14. 40
25	11. 41	11. 54	12. 8	12. 23	12. 38	12. 55	13. 13
VIII + 0	10. 17	10. 28	10. 40	10. 53	11. 7	11. 22	11. 38
5	8. 45	8. 55	9. 5	9. 17	9. 29	9. 42	9. 55
10	7. 8	7. 16	7. 24	7. 34	7. 44	7. 54	8. 5
15	5. 26	5. 32	5. 38	5. 45	5. 53	6. 1	6. 9
20	3. 40	3. 44	3. 48	3. 53	3. 58	4. 3	4. 9
25	1. 51	1. 53	1. 55	1. 57	2. 0	2. 2	2. 5
IX — 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0
5	1. 51	1. 53	1. 55	1. 57	2. 0	2. 2	2. 5
10	3. 40	3. 44	3. 48	3. 53	3. 58	4. 3	4. 9
15	5. 27	5. 33	5. 39	5. 46	5. 54	6. 2	6. 10
20	7. 10	7. 18	7. 26	7. 35	7. 45	7. 56	8. 6
25	8. 48	8. 57	9. 7	9. 19	9. 31	9. 44	9. 57
X — 0	10. 20	10. 31	10. 43	10. 56	11. 10	11. 25	11. 41
5	11. 45	11. 58	12. 12	12. 26	12. 42	12. 59	13. 17
10	13. 3	13. 18	13. 33	13. 49	14. 7	14. 26	14. 46
15	14. 13	14. 29	14. 46	15. 4	15. 23	15. 44	16. 6
20	15. 15	15. 32	15. 51	16. 10	16. 31	16. 53	17. 17
25	16. 10	16. 28	16. 48	17. 8	17. 30	17. 54	18. 19
XI — 0	16. 57	17. 16	17. 36	17. 58	18. 21	18. 46	19. 12
5	17. 35	17. 55	18. 16	18. 39	19. 3	19. 28	19. 55
10	18. 6	18. 26	18. 48	19. 11	19. 36	20. 2	20. 30
15	18. 29	18. 50	19. 12	19. 36	20. 1	20. 28	20. 56
20	18. 44	19. 5	19. 28	19. 52	20. 18	20. 45	21. 14
25	18. 52	19. 13	19. 36	20. 1	20. 27	20. 54	21. 23
XII — 0	18. 53	19. 14	19. 37	20. 1	20. 27	20. 55	21. 24

Multiply the Numbers in this Table by the Tangent of the Latitude of the Place of Observation; which, if South, will change the Sign.

A Table of the Equations, &c. continued. Part I.

Half Interval between the Observations.

☉'s Long.	H. M.		H. M.		H. M.		H. M.	
	V. 30	V. 40	V. 50	V. 60	V. 70	V. 80	V. 90	V. 100
S. D.	" "	" "	" "	" "	" "	" "	" "	" "
VI + 0	21. 41	22. 14	22. 50	23. 28				
5	21. 41	22. 13	22. 49	23. 27				
10	21. 32	22. 4	22. 39	23. 17				
15	21. 14	21. 46	22. 21	22. 58				
20	20. 48	21. 20	21. 54	22. 29				
25	20. 13	20. 44	21. 17	21. 51				
VII + 0	19. 29	19. 59	20. 31	21. 4				
5	18. 36	19. 5	19. 35	20. 7				
10	17. 34	18. 1	18. 30	19. 0				
15	16. 22	16. 48	17. 15	17. 43				
20	15. 2	15. 25	15. 50	16. 16				
25	13. 33	13. 53	14. 15	14. 39				
VIII + 0	11. 55	12. 13	12. 32	12. 53				
5	10. 9	10. 24	10. 41	10. 59				
10	8. 16	8. 28	8. 42	8. 57				
15	6. 18	6. 27	6. 37	6. 49				
20	4. 15	4. 21	4. 28	4. 36				
25	2. 8	2. 11	2. 15	2. 19				
IX — 0	0. 0	0. 0	0. 0	0. 0				
5	2. 8	2. 11	2. 15	2. 19				
10	4. 15	4. 21	4. 28	4. 36				
15	6. 19	6. 28	6. 39	6. 50				
20	8. 18	8. 31	8. 45	8. 59				
25	10. 12	10. 28	10. 45	11. 2				
X — 0	11. 58	12. 17	12. 37	12. 57				
5	13. 37	13. 58	14. 21	14. 44				
10	15. 8	15. 31	15. 56	16. 22				
15	16. 30	16. 55	17. 22	17. 50				
20	17. 42	18. 9	18. 38	19. 9				
25	18. 46	19. 14	19. 45	20. 18				
XI — 0	19. 40	20. 10	20. 42	21. 16				
5	20. 24	20. 56	21. 29	22. 4				
10	21. 0	21. 32	22. 6	22. 42				
15	21. 27	21. 59	22. 34	23. 11				
20	21. 45	22. 17	22. 52	23. 30				
25	21. 54	22. 26	23. 2	23. 40				
XII — 0	21. 55	22. 27	23. 3	23. 41				

Multiply the Numbers in this Table by the Tangent of the Latitude of the Place of Observation ; which, if South, will change the Sign.

A Table of the Equations to Equal Altitudes. Part II.							
Half Interval between the Observations.							
☉'s Long.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
	ll. 0	ll. 10	ll. 20	ll. 30	ll. 40	ll. 50	ll. 0
S. D.	" "	" "	" "	" "	" "	" "	" "
O + 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0
5	0. 28	0. 28	0. 27	0. 26	0. 26	0. 25	0. 24
10	0. 56	0. 55	0. 53	0. 52	0. 51	0. 50	0. 48
15	1. 22	1. 20	1. 18	1. 16	1. 15	1. 13	1. 10
20	1. 46	1. 44	1. 41	1. 39	1. 37	1. 35	1. 31
25	2. 7	2. 5	2. 2	1. 59	1. 56	1. 54	1. 49
I + 0	2. 25	2. 23	2. 19	2. 16	2. 13	2. 10	2. 5
5	2. 39	2. 27	2. 33	2. 30	2. 26	2. 22	2. 17
10	2. 49	2. 46	2. 42	2. 39	2. 35	2. 31	2. 26
15	2. 54	2. 51	2. 46	2. 43	2. 39	2. 35	2. 30
20	2. 53	2. 50	2. 46	2. 43	2. 39	2. 35	2. 30
25	2. 46	2. 44	2. 41	2. 37	2. 33	2. 29	2. 25
II + 0	2. 35	2. 33	2. 30	2. 27	2. 23	2. 19	2. 15
5	2. 19	2. 17	2. 14	2. 11	2. 8	2. 4	2. 0
10	1. 58	1. 56	1. 53	1. 51	1. 48	1. 45	1. 42
15	1. 33	1. 31	1. 29	1. 27	1. 24	1. 22	1. 20
20	1. 4	1. 3	1. 1	1. 0	0. 58	0. 57	0. 55
25	0. 33	0. 32	0. 31	0. 30	0. 30	0. 29	0. 28
III — 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0
5	0. 33	0. 32	0. 31	0. 30	0. 30	0. 29	0. 28
10	1. 4	1. 3	1. 1	0. 59	0. 58	0. 57	0. 55
15	1. 33	1. 31	1. 29	1. 26	1. 24	1. 22	1. 19
20	1. 58	1. 56	1. 53	1. 50	1. 47	1. 44	1. 41
25	2. 19	2. 16	2. 13	2. 10	2. 6	2. 3	1. 59
IV — 0	2. 35	2. 32	2. 29	2. 26	2. 21	2. 18	2. 14
5	2. 46	2. 43	2. 39	2. 36	2. 32	2. 28	2. 23
10	2. 52	2. 49	2. 45	2. 42	2. 38	2. 33	2. 28
15	2. 52	2. 50	2. 46	2. 43	2. 39	2. 34	2. 29
20	2. 47	2. 45	2. 41	2. 38	2. 34	2. 30	2. 25
25	2. 38	2. 36	2. 32	2. 29	2. 25	2. 21	2. 17
V — 0	2. 24	2. 22	2. 19	2. 16	2. 12	2. 9	2. 5
5	2. 6	2. 4	2. 2	1. 59	1. 55	1. 53	1. 49
10	1. 45	1. 43	1. 41	1. 39	1. 36	1. 34	1. 31
15	1. 21	1. 19	1. 18	1. 16	1. 14	1. 13	1. 10
20	0. 53	0. 54	0. 53	0. 52	0. 51	0. 50	0. 48
25	0. 28	0. 27	0. 27	0. 26	0. 26	0. 25	0. 25
VI — 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0

A Table of the Equations, &c. continued. Part II.

Half Interval between the Observations.

☉'s Long.		H. M.		H. M.		H. M.		H. M.		H. M.		H. M.			
		II. 10		II. 20		III. 30		III. 40		III. 50		IV. 0		IV. 10	
S.	D.	''	'''	''	'''	''	'''	''	'''	''	'''	''	'''	''	'''
O +	0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0
	5	0. 24	0. 23	0. 22	0. 21	0. 20	0. 19	0. 18	0. 17	0. 16	0. 15	0. 14	0. 13	0. 12	0. 11
	10	0. 47	0. 45	0. 43	0. 41	0. 39	0. 37	0. 35	0. 34	0. 32	0. 30	0. 28	0. 26	0. 24	0. 22
	15	1. 8	1. 6	1. 3	1. 0	0. 57	0. 54	0. 51	0. 48	0. 45	0. 42	0. 39	0. 36	0. 33	0. 30
	20	1. 28	1. 26	1. 22	1. 18	1. 14	1. 10	1. 6	0. 52	0. 48	0. 44	0. 40	0. 36	0. 32	0. 28
	25	1. 46	1. 43	1. 38	1. 34	1. 29	1. 24	1. 19	1. 14	1. 09	1. 04	0. 99	0. 94	0. 89	0. 84
I +	0	2. 1	1. 57	1. 52	1. 47	1. 42	1. 36	1. 30	1. 24	1. 18	1. 12	1. 06	1. 00	0. 94	0. 88
	5	2. 13	2. 8	2. 3	1. 58	1. 52	1. 45	1. 39	1. 32	1. 26	1. 20	1. 14	1. 08	1. 02	0. 96
	10	2. 21	2. 16	2. 11	2. 5	1. 59	1. 52	1. 45	1. 38	1. 31	1. 24	1. 17	1. 10	1. 03	0. 96
	15	2. 25	2. 20	2. 15	2. 9	2. 2	1. 55	1. 48	1. 41	1. 34	1. 27	1. 20	1. 13	1. 06	0. 99
	20	2. 25	2. 19	2. 14	2. 8	2. 2	1. 55	1. 48	1. 41	1. 34	1. 27	1. 20	1. 13	1. 06	0. 99
	25	2. 20	2. 14	2. 9	2. 3	1. 58	1. 51	1. 44	1. 37	1. 30	1. 23	1. 16	1. 09	1. 02	0. 95
II +	0	2. 10	2. 5	2. 0	1. 55	1. 50	1. 44	1. 37	1. 30	1. 23	1. 16	1. 09	1. 02	0. 95	0. 88
	5	1. 56	1. 52	1. 47	1. 43	1. 38	1. 33	1. 27	1. 21	1. 15	1. 09	1. 03	0. 97	0. 91	0. 85
	10	1. 39	1. 35	1. 31	1. 27	1. 23	1. 19	1. 14	1. 09	1. 04	0. 99	0. 94	0. 89	0. 84	0. 79
	15	1. 18	1. 15	1. 12	1. 9	1. 6	1. 2	0. 58	0. 53	0. 48	0. 43	0. 38	0. 33	0. 28	0. 23
	20	0. 54	0. 52	0. 50	0. 48	0. 46	0. 43	0. 40	0. 37	0. 34	0. 31	0. 28	0. 25	0. 22	0. 19
	25	0. 27	0. 26	0. 26	0. 25	0. 23	0. 22	0. 20	0. 18	0. 16	0. 14	0. 12	0. 10	0. 08	0. 06
III —	0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0
	5	0. 27	0. 26	0. 26	0. 25	0. 23	0. 22	0. 20	0. 18	0. 16	0. 14	0. 12	0. 10	0. 08	0. 06
	10	0. 53	0. 52	0. 50	0. 48	0. 46	0. 43	0. 40	0. 37	0. 34	0. 31	0. 28	0. 25	0. 22	0. 19
	15	1. 17	1. 15	1. 12	1. 9	1. 6	1. 2	0. 58	0. 53	0. 48	0. 43	0. 38	0. 33	0. 28	0. 23
	20	1. 38	1. 35	1. 31	1. 27	1. 23	1. 18	1. 13	1. 08	1. 03	0. 98	0. 93	0. 88	0. 83	0. 78
	25	1. 56	1. 52	1. 47	1. 43	1. 37	1. 32	1. 26	1. 21	1. 15	1. 10	1. 04	0. 98	0. 92	0. 86
IV —	0	2. 10	2. 5	2. 0	1. 55	1. 49	1. 43	1. 36	1. 30	1. 23	1. 16	1. 09	1. 02	0. 95	0. 88
	5	2. 19	2. 14	2. 9	2. 3	1. 57	1. 50	1. 43	1. 36	1. 29	1. 22	1. 15	1. 08	1. 01	0. 94
	10	2. 24	2. 19	2. 13	2. 7	2. 1	1. 54	1. 47	1. 40	1. 33	1. 26	1. 19	1. 12	1. 05	0. 98
	15	2. 24	2. 19	2. 13	2. 7	2. 1	1. 55	1. 48	1. 41	1. 34	1. 27	1. 20	1. 13	1. 06	0. 99
	20	2. 20	2. 15	2. 10	2. 4	1. 58	1. 52	1. 45	1. 38	1. 31	1. 24	1. 17	1. 10	1. 03	0. 96
	25	2. 12	2. 7	2. 3	1. 57	1. 52	1. 46	1. 39	1. 32	1. 25	1. 18	1. 11	1. 04	0. 97	0. 90
V —	0	2. 1	1. 56	1. 52	1. 47	1. 42	1. 36	1. 30	1. 24	1. 18	1. 12	1. 06	1. 00	0. 94	0. 88
	5	1. 46	1. 42	1. 38	1. 34	1. 29	1. 24	1. 19	1. 13	1. 07	1. 01	0. 95	0. 89	0. 83	0. 77
	10	1. 28	1. 25	1. 22	1. 18	1. 14	1. 10	1. 6	0. 52	0. 47	0. 41	0. 35	0. 29	0. 23	0. 17
	15	1. 8	1. 6	1. 3	1. 0	0. 57	0. 54	0. 51	0. 48	0. 45	0. 42	0. 39	0. 36	0. 33	0. 30
	20	0. 47	0. 45	0. 43	0. 41	0. 39	0. 37	0. 35	0. 33	0. 31	0. 28	0. 26	0. 24	0. 22	0. 20
	25	0. 24	0. 23	0. 22	0. 21	0. 20	0. 19	0. 18	0. 17	0. 16	0. 15	0. 14	0. 13	0. 12	0. 11
VI —	0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0

A Table of the Equations, &c. continued. Part II.
Half Interval between the Observations.

☉'s Long.	H. M.	H. M.	H. M.	H. M.
	V. 30	V. 40	V. 50	VI. 0
S. D.	" "	" "	" "	" "
O + 0	0. 0	0. 0	0. 0	0. 0
5	0. 6	0. 4	0. 2	0. 0
10	0. 12	0. 8	0. 4	0. 0
15	0. 17	0. 12	0. 6	0. 0
20	0. 22	0. 15	0. 8	0. 0
25	0. 27	0. 18	0. 9	0. 0
I + 0	0. 31	0. 21	0. 11	0. 0
5	0. 34	0. 23	0. 12	0. 0
10	0. 35	0. 24	0. 12	0. 0
15	0. 36	0. 25	0. 13	0. 0
20	0. 36	0. 25	0. 13	0. 0
25	0. 35	0. 24	0. 12	0. 0
II + 0	0. 32	0. 22	0. 11	0. 0
5	0. 29	0. 20	0. 10	0. 0
10	0. 25	0. 17	0. 9	0. 0
15	0. 20	0. 13	0. 7	0. 0
20	0. 14	0. 9	0. 5	0. 0
25	0. 7	0. 5	0. 3	0. 0
III — 0	0. 0	0. 0	0. 0	0. 0
5	0. 7	0. 5	0. 3	0. 0
10	0. 14	0. 9	0. 5	0. 0
15	0. 20	0. 13	0. 7	0. 0
20	0. 25	0. 17	0. 9	0. 0
25	0. 29	0. 20	0. 10	0. 0
IV — 0	0. 32	0. 22	0. 11	0. 0
5	0. 34	0. 23	0. 12	0. 0
10	0. 36	0. 24	0. 12	0. 0
15	0. 36	0. 24	0. 12	0. 0
20	0. 35	0. 23	0. 12	0. 0
25	0. 33	0. 22	0. 11	0. 0
V — 0	0. 30	0. 20	0. 10	0. 0
5	0. 26	0. 18	0. 9	0. 0
10	0. 22	0. 15	0. 8	0. 0
15	0. 17	0. 12	0. 6	0. 0
20	0. 12	0. 8	0. 4	0. 0
25	0. 6	0. 4	0. 2	0. 0
VI — 0	0. 0	0. 0	0. 0	0. 0

A Table of the Equations, &c. continued. Part II.
Half Interval between the Observations.

		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
☉'s Long.		III. 10	III. 20	III. 30	III. 40	III. 50	IV. 0	IV. 10
S.	D.	'''''	'''''	'''''	'''''	'''''	'''''	'''''
VI	+	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0
	5	0. 24	0. 23	0. 22	0. 21	0. 20	0. 19	0. 18
	10	0. 47	0. 45	0. 43	0. 41	0. 39	0. 37	0. 35
	15	1. 9	1. 6	1. 4	1. 1	0. 58	0. 55	0. 52
	20	1. 30	1. 26	1. 23	1. 19	1. 15	1. 11	1. 7
	25	1. 48	1. 44	1. 40	1. 36	1. 31	1. 26	1. 21
VII	+	2. 4	2. 0	1. 55	1. 50	1. 45	1. 39	1. 33
	5	2. 17	2. 12	2. 7	2. 1	1. 55	1. 49	1. 43
	10	2. 26	2. 21	2. 15	2. 9	2. 3	1. 57	1. 50
	15	2. 31	2. 26	2. 20	2. 14	2. 8	2. 1	1. 54
	20	2. 32	2. 26	2. 20	2. 14	2. 8	2. 1	1. 54
	25	2. 28	2. 22	2. 16	2. 10	2. 4	1. 57	1. 50
VIII	+	2. 18	2. 13	2. 8	2. 2	1. 56	1. 49	1. 43
	5	2. 4	1. 59	1. 55	1. 49	1. 44	1. 38	1. 32
	10	1. 45	1. 41	1. 37	1. 32	1. 28	1. 23	1. 18
	15	1. 23	1. 19	1. 16	1. 12	1. 9	1. 5	1. 2
	20	0. 57	0. 55	0. 53	0. 50	0. 48	0. 45	0. 43
	25	0. 29	0. 28	0. 27	0. 26	0. 25	0. 23	0. 22
IX	—	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0
	5	0. 29	0. 28	0. 27	0. 26	0. 25	0. 23	0. 22
	10	0. 57	0. 55	0. 53	0. 50	0. 48	0. 45	0. 43
	15	1. 23	1. 19	1. 16	0. 13	1. 9	1. 5	1. 2
	20	1. 45	1. 41	1. 37	0. 32	1. 28	1. 23	1. 18
	25	2. 4	1. 59	1. 54	1. 49	1. 44	1. 38	1. 32
X	—	2. 18	2. 13	2. 8	2. 2	1. 56	1. 50	1. 43
	5	2. 28	2. 22	2. 17	2. 11	2. 4	1. 57	1. 50
	10	2. 32	2. 27	2. 21	2. 15	2. 8	2. 1	1. 54
	15	2. 32	2. 27	2. 21	2. 15	2. 8	2. 1	1. 54
	20	2. 27	2. 22	2. 16	2. 10	2. 4	1. 57	1. 50
	25	2. 18	2. 13	2. 8	2. 2	1. 57	1. 50	1. 43
XI	—	2. 6	2. 1	1. 56	1. 51	1. 46	1. 40	1. 34
	5	1. 50	1. 46	1. 41	1. 37	1. 32	1. 27	1. 22
	10	1. 31	1. 28	1. 24	1. 20	1. 16	1. 12	1. 8
	15	1. 10	1. 8	1. 5	1. 2	0. 59	0. 56	0. 53
	20	0. 48	0. 46	0. 44	0. 42	0. 40	0. 38	0. 36
	25	0. 24	0. 23	0. 22	0. 21	0. 20	0. 19	0. 18
XII	—	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0

A Table of the Equations, &c. continued. Part II.

Half Interval between the Observations.

☉'s Long.	H. M.		H. M.		H. M.		H. M.	
	V.	30	V.	40	V.	50	VI.	0
S. D.	" "		" "		" "		" "	
VI + 0	0.	0	0.	0	0.	0	0.	0
5	0.	6	0.	4	0.	2	0.	0
10	0.	12	0.	8	0.	4	0.	0
15	0.	17	0.	12	0.	6	0.	0
20	0.	22	0.	16	0.	8	0.	0
25	0.	27	0.	19	0.	10	0.	0
VII + 0	0.	31	0.	22	0.	11	0.	0
5	0.	34	0.	24	0.	12	0.	0
10	0.	36	0.	25	0.	13	0.	0
15	0.	38	0.	26	0.	13	0.	0
20	0.	38	0.	26	0.	13	0.	0
25	0.	37	0.	25	0.	13	0.	0
VIII + 0	0.	35	0.	24	0.	12	0.	0
5	0.	31	0.	21	0.	11	0.	0
10	0.	26	0.	18	0.	9	0.	0
15	0.	21	0.	14	0.	7	0.	0
20	0.	15	0.	10	0.	5	0.	0
25	0.	8	0.	5	0.	3	0.	0
IX - 0	0.	0	0.	0	0.	0	0.	0
5	0.	8	0.	5	0.	3	0.	0
10	0.	15	0.	10	0.	5	0.	0
15	0.	21	0.	14	0.	7	0.	0
20	0.	26	0.	18	0.	9	0.	0
25	0.	31	0.	21	0.	11	0.	0
X - 0	0.	35	0.	24	0.	12	0.	0
5	0.	37	0.	25	0.	13	0.	0
10	0.	38	0.	26	0.	13	0.	0
15	0.	38	0.	26	0.	13	0.	0
20	0.	37	0.	25	0.	13	0.	0
25	0.	34	0.	23	0.	12	0.	0
XI - 0	0.	31	0.	21	0.	11	0.	0
5	0.	27	0.	18	0.	9	0.	0
10	0.	22	0.	15	0.	8	0.	0
15	0.	17	0.	12	0.	6	0.	0
20	0.	12	0.	8	0.	4	0.	0
25	0.	6	0.	4	0.	2	0.	0
XII - 0	0.	0	0.	0	0.	0	0.	0

EXPLANATION AND USE

OF THE

FOREGOING TABLES OF EQUATIONS
TO EQUAL ALTITUDES.

By WILLIAM WALES.

ASTRONOMERS, in order to determine the Time when the Sun's Center is on the Meridian, or, in other Words, the Time of apparent Noon, observe in the Morning, with a proper Instrument, the Time when the Sun's upper or lower Limb, or rather both, have some certain convenient Altitude, and also the Time in the Afternoon when the same Limbs have the same Altitude; they then add Half the Interval elapsed between the Observations of the same Limb to the Time of the First Observation, which gives the Time of apparent Noon nearly. This would be accurately the Time of apparent Noon, if the Sun was not to change its Declination in the Interval between the Observations; but as this is not the Case, it is usual to calculate the Quantity by which the Time of Noon, thus determined, is accelerated or retarded, and apply it to the Time thus found, which gives the true Time required.

To facilitate this Calculation is the Intent of the annexed Tables; but before I proceed to the Manner of using them, it may not be amiss to give some Account of the Method by which they were constructed, as the Publick will thereby be enabled to judge what Degree of Accuracy they may pretend to.

[C]

They

They are calculated from a Formula, which I deduced from *Art. 256. of Simpson's Fluxions*, and that naturally divides itself into Two Parts. The First is composed of the Change in the Sun's Declination, during Half the Interval between the Observations, multiplied by the Co-secant of the Sun's horary Angle at the Times of the Observations, multiplied again by the Tangent of the geographical Latitude; but to make the Tables general, the Tangent of the Latitude is left out in the Computation, and therefore Tab. I. contains the Numbers formed by multiplying the Change in Declination into the Co-secant of the Sun's horary Angle, turned into Time. Hence it is evident that the Numbers taken out of this Table are to be multiplied by the Tangent of the geographical Latitude. The Second Part consists of the said Change in the Declination, multiplied by the Tangent of the Sun's Declination, multiplied again by the Co-tangent of the Sun's horary Angle: This Part is common to all Latitudes, and the Results, turned into Time, are contained in Tab. II.

The chief Difficulty which occurred to me was the determining, with sufficient Exactness, the Change in the Sun's Declination between the Observations, which requires to be done with great Accuracy: The Method which I made Use of is as follows. I first found by means of *The Nautical Almanac* the Times when the Sun had exactly the several Longitudes $0^{\circ}.0'$, $0^{\circ}.10'$, $0^{\circ}.20'$, $1^{\circ}.0'$, &c. to 12° , and then calculated from *Mayer's Tables* the Sun's Longitude to 3^h before and 3^h after those Times, and from thence the Declinations; the Differences between these Declinations I took for the Increments corresponding to 6^h ; $\frac{1}{3}$ of which I took for 2^h , $\frac{2}{3}$ for 3^h , &c. The Increments corresponding to 6^h at $0^{\circ}.5'$, $0^{\circ}.10'$, $0^{\circ}.15'$, $0^{\circ}.25'$, &c. I found by interpolating from the others, and have Reason to believe they are not less accurate than the radical ones from whence they were interpolated. This Method may appear tedious; but I did not find that the Differences of Increments deduced by any other Method would run so regularly as I could wish, nor indeed as the great Nicety of modern Astronomy seems to require. And I have endeavoured to guard against any Errors which might happen in the Calculations, by taking the Differences both perpendicularly and collaterally. From what is above delivered, and the following Precepts, the Use of these Tables will be very easy.

Add

Add 12 Hours to the Time of the Afternoon Observation ; from which subtract the Time of the Forenoon one, and add Half the Difference to the Time of the Morning Observation, which will give the Time of apparent Noon nearly. Find the Sun's Longitude at Noon, on the Day of Observation, from the *Nautical*, or any other *Ephemeris*, observing to allow for the Difference of Meridians, if under a Meridian considerably different from that for which the *Ephemeris* is calculated, and with the said Longitude in the left Hand Column, and the above-found half Interval at the Top, enter Tab. I. and take out the Number found in the Angle where they meet (making Proportion for the odd Minutes and Seconds above even Tens in the half Interval, and the odd Degrees and Minutes in the Sun's Longitude above even Fives) and write it down with its Sign, + or —, as it may happen to be in the Table. Look out the logarithical Logarithm of this Number, which may be done by reckoning the Seconds Minutes, and the Thirds Seconds, and add thereto the Log. Co-tangent of the geographical Latitude, and look out the Number answering to their Sum (Radius being rejected) reckoning contrarily the Minutes Seconds, and the Seconds Thirds ; which, if the Latitude be North, will have the same Sign with the Number taken out of the Table ; but if South, the contrary. In like Manner enter Tab. II. and take out the Number there found (making Proportion as before) with its Sign. The Sum or Difference of these Two Numbers, according as the Signs are alike or unlike, applied as the Sign common, or Sign of the greater directs, to the Time of Noon found nearly above, will give the true Time of Noon required.

E X A M P L E.

August 8th, 1769, on the Coast of *Hudson's Bay*, Latitude $58^{\circ} 47\frac{1}{2}'$ North, Longitude in Time $6^{\text{h}} 16\frac{1}{2}'$ West of *Greenwich*, the following Observations of equal Altitudes were taken: It is required to find the Time of apparent Noon therefrom. (See *Philos. Transf.* Vol. LIX. p. 474.)

Sun's

Sun's upper Limb.				Sun's lower Limb.				Time of Aftern. Ob. Add.	Time of Morn. Ob.	Difference.	Half Difference.	Time of N. nearly.
h	'	"	h	'	"	h	'					
4. 58. 44	4. 55. 14	4. 51. 44	4. 54. 34	4. 51. 24	4. 48. 04	4. 51. 24	4. 48. 04	Time of Aftern. Ob.	Time of Morn. Ob.	Difference.	Half Difference.	Time of N. nearly.
12.	12.	12.	12.	12.	12.	12.	12.	Add.				
16. 58. 44	16. 55. 14	16. 51. 44	16. 54. 34	16. 51. 24	16. 48. 04	16. 51. 24	16. 48. 04					
7. 12. 42½	7. 16. 13	7. 19. 42½	7. 16. 51½	7. 19. 42½	7. 16. 51½	7. 16. 51½	7. 16. 51½					
9. 46. 1½	9. 39. 1	9. 32. 1½	9. 37. 42½	9. 32. 1½	9. 25. 42½	9. 37. 42½	9. 30. 40					
4. 53. 0½	4. 49. 30½	4. 46. 0½	4. 48. 51½	4. 46. 0½	4. 43. 0½	4. 48. 51½	4. 45. 20					
0. 5. 43½	0. 5. 43½	0. 5. 43½	0. 5. 43½	0. 5. 43½	0. 5. 43½	0. 5. 43½	0. 5. 42½					

Sun's

Sun's Longitude at Noon under the given Meridian	-	-	-	° ' "	4 16. 20
				h ' "	
Mean Half Interval	-	-	-		4. 48. 33
				" "	
The Number from Table I. is	-	-	+		14. 31
Its logift. Log. is	-	-			0. 6163
Log. Co-tang. of Lat.	-				9. 7823
				" "	
Their Sum	-	-	-		0. 3986
The Number from Table II. is	-	-	-		23. 58
					1. 16
Their Difference is the Equat.	-	-	+		22. 42
Time of Noon nearly, or uncorrected by the Tables, from a Mean of the Five preceding Observations	-	-	-	h ' "	0. 5. 43. 03
Time of true Noon required	-	-	-		0. 6. 5. 45

N. B. If the Observations are written down according to astronomical Time, 24^h instead of 12^h must be added to the Time of the Afternoon Observation.

R E M A R K S.

It may sometimes happen that the Half Interval may exceed 6^h, in which Case the Tables are to be entered with its Supplement to 12^h, and a different Sign to that found against the Number in Table II. must be prefixed: It is farther observable that as the Interval is here longer than that supposed in the Tables, the Increase or Decrease of the Sun's Declination will be so also, and consequently the Numbers in these Tables altered: To correct which, add together the logiftical Logarithm of the Sum or Difference of the Two Equations found as before directed (taking Seconds as Minutes and Thirds as Seconds) the logiftical Logarithm of the Half Interval, and the arithmetical Complement of the logiftical Logarithm of the Supplement of the said Half Interval to 12^h, taking Hours as Minutes and Minutes as Seconds in these two last Numbers; their Sum, rejecting the Radius, is the logiftical Logarithm

Logarithm of the Correction (reckoning the Minutes Seconds and the Seconds Thirds) to be applied to the Time of Noon, as found, nearly, by the preceding Directions.

It ought farther to be remarked that when the Clock's Rate of going differs considerably from mean solar Time, and great Accuracy is required, it may be necessary to correct the Half Interval according to the following Proportion; viz. as 24^h is to the Clock's Gain or Loss in 24^h , so is the Half Interval to the Correction required; which, being added to or subtracted from the said Half Interval, according as the Clock is losing or gaining, will give the Half Interval corresponding to the Tables; and when the Equation is found, it must be reduced into Time of the Clock's Rate of going, by saying, as 24^h is to $24^h +$ the Clock's Gain, or $24^h -$ the Clock's Loss, in 24^h , so is the Equation found according to the preceding Directions to the Equation required in this Case; or it may be done rather more commodiously, by subtracting or adding, according as the Clock gains or loses, from or to the logarithical Logarithm of the Equation found by the preceding Directions, the Difference between the Logarithms of 24^h , and $24^h +$ the Clock's Gain or $24^h -$ the Clock's Loss; the Difference or Sum is the logarithical Logarithm of the Equation sought, having every where Regard to the Caution first given of taking Seconds as Minutes and Thirds as Seconds. It may not be amiss to add an Example in these Cases.

Suppose that at the *North Cape*, Lat. $71^\circ. 23' N.$ and Longitude, in Time, East of *Greenwich* $1^h. 44'. 48''$, on *May 3d*, 1769, equal Altitudes of the Sun had been observed at $5^h. 40'. 3''$ in the Morning, and at $6^h. 25'. 51''$ in the Afternoon, by a Clock which was gaining $8\frac{1}{2}'$ in 24^h on mean solar Time; it is required to find the Time by this Clock, when the Sun's Center was on the Meridian?

Evening

Evening Observation	+ 12	-	-	-	-	18. 25. 51
Morning D°	-	-	-	-	-	5. 40. 3
Interval by the Clock	-	-	-	-	-	12. 45. 48
Half of D°	-	-	-	-	-	6. 22. 54
Gain in 6 ^h . 23'	-	-	-	-	-	2. 15
Half Interval corrected	-	-	-	-	-	6. 20. 39
Supplement to 12 ^h	-	-	-	-	-	5. 39. 21
Sun's Long. at Noon	-	-	-	-	-	1. 13. 11
Number from Table I.	-	-	-	-	-	16. 35
Its logist. Logarithm is	-	-	-	-	-	0. 5585
Log. Co-tang. of Lat.	-	-	-	-	-	9. 5275
Their Sum	-	-	-	-	-	0. 0860
The Number Table II. with contrary Sign	-	-	-	-	-	49. 13
Logist. Log. of Sum	-	-	-	-	-	0. 0824
Logist. Log. of Half Interval	-	-	-	-	-	0. 9758
Comp. ar. log. Log. of Sup.	-	-	-	-	-	8. 9744
of Half Interval	-	-	-	-	-	
Sum	-	-	-	-	-	0. 0326
Dif. of Log. of 24 ^h and 24 ^h .	-	-	-	-	-	0. 0026
8½'. subtract	-	-	-	-	-	
Logist. Log. of Equation	-	-	-	-	-	0. 0300
required	-	-	-	-	-	56. 0
Time of Noon nearly	-	-	-	-	-	0. 2. 57, 0
Time of true Noon required	-	-	-	-	-	0. 2. 1. 0

These

These Corrections are here added, because it is *possible* they may *sometimes* be necessary; but as no Advantage whatever can be gained by taking the Half Interval greater than 6^h , it will never be adviseable to have it so, when a shorter can be obtained; and with respect to the other, if no Regard had been shewn to the going of the Clock, the Equation would have come out $56''. 12'''$, the Difference between which and that above deduced is too trifling to deserve the least Notice in common Practice; and more especially, as a Change in the Temperature of the Air may occasion an Error, sometimes, of more than $2''$; and yet even this, I believe, has hitherto been seldom taken into the Account.

A
C A T A L O G U E

OF THE

PLACES OF 387 FIXED STARS,

IN

**Right-Ascension, Declination, Longitude, and
Latitude ;**

**ADAPTED TO THE BEGINNING OF
THE YEAR 1760:**

WITH THEIR

**Magnitudes and Annual Variations in Right
Ascension and Declination.**

CALCULATED FROM THE

LATE DR. BRADLEY'S OBSERVATIONS.

Note, Those Stars whose Right Ascension is between 90° and 270° with North Declination, and more than 270° and less than 90° with South Declination; have their annual Variation of Declination in the 6th Column subtractive; and those Stars whose Right Ascension is more than 270° and less than 90° with North Declination, and between 90° and 270° with South Declination; have their annual Variation of Declination in the 6th Column additive. This is to be understood with respect to a Time after Jan. 1, 1760; but, if the Time precedes that Period, the Variation of Declination is to be applied with a contrary Sign.

Stars Names.	Mag.	Mean R. Af. 1st Jan. 1760.	Mean Dist. from North Pole.	An. Precef. in A. R. Decl.		Mean Lon- gitude.	Mean Lat- tude.
		D. M. S.	D. M. S.	S.	S.	S. D. M. S.	D. M. S.
γ Peg. Alg.	2	0.13.35	76. 9. 5	46, 2	20, 04	0. 5.48.46 $\frac{1}{2}$	12.35.34
ϵ Ceti	3	1.44.28	100.10. 1	46, 4	20, 00	11.27.30.16	10. 0.47
* δ Piscium	5	2. 4. 1	83. 8.40	46,27	20,40	0. 4.37.55	5.27.52
δ Androm.	3	6.38.13 $\frac{1}{2}$	60.28. 0	47,40	20,01	0.18.27.49	24.20.11
α Cassiop.	3	6.45.35	34.46.52	49,58	19,91	1. 4.27.25	46.36.21
β Ceti	3	7.52.59	109.18.27	45,22	19,86	11.29.12.22	20.47. 7
ζ Androm.	4	8.39.58	67. 2.30	47,46	19,82	0.17.14.52	17.36.35
* ϵ Ceti	5	10.11.19	92.27. 8	46,04	19,74	0. 8.23.31	6.17.38
γ Cassiop.	3	10.36.19	30.35.16	52,42	19,71	1.10.36. 5	48.47.41
* ϵ Piscium	4	12.37.43	83.23.26	46,70	19,58	0.14.11.15	1. 5.37
* ϵ Piscium	5	14. 0.30	85.37.31	46,55	19,46	0.14.35.14 $\frac{1}{2}$	1.29.56
β Androm.	2	14. 5.40	55.39.33	49,52	19,45	0.27. 3.36	25.56. 8
η Ceti	3	14. 7.48	101.27.39	45,19	19,45	0. 8.23.56	16. 6.50
δ Cassiop.	4	14. 9.48	36. 7.57	52,90	19,44	1. 8.27.10	43. 6.28
* ζ Piscium	4	15.18.18	83.42. 0	46,75	19,30	0.16.31.15	0 13.11
δ Cassiop.	3	17.34.49	31. 1.10	56,25	19,12	1.14.34.43	46.23.29
θ Ceti	3	18. 0.33	99.25.41	45,15	19,07	0.12.52.48	15.46. 1
* μ Piscium	5	19.24.35	85. 6. 0	46,76	18,92	0.19.46. 6	3. 4. 4
* η Piscium	5	19.40.14	75.53.55	47,88	18,88	0.23.28. 4 $\frac{1}{2}$	5.21.45
* ω Piscium	5	21. 6.13	79. 5.40	47,57	18,71	0.23.24.11	1.52.32
* ι Piscium	5	21.41.38	74.49.11	48,19	18,63	0.25.41.50	5.37.49
* ν Piscium	4	22.14.26	85.44. 8	46,64	18,56	0.22. 9.17	4.42.37
* σ Piscium	4	23.11.14	82. 3.32	47,28	18,41	0.24.23.11 $\frac{1}{2}$	1.38.17
ϵ Cassiop.	3	24.21. 0	27.31.27	62,18	18,27	1.21.25.56 $\frac{1}{2}$	47.31.36
γ Arietis	4	25. 6. 7	71.53.33	49,00	18,20	0.29.50. 8	7. 9. 7
β Arietis	3	25.21.28	70.22.30	49,25	18,10	1. 0.37.13	8.28.38
* ι Arietis	5	26. 4.16	73.21.51	48,80	18,00	1. 0.10. 2	5.26.32
λ Arietis	5	26. 9.11	67.35. 4	49,48	18,50	1. 2.21. 6	10.48.23
γ Androm.	2	27.19. 7	48.50. 2	54,25	17,80	1.10.53. 6	27.47.13
α Piscium	3	27.24.46	88.24.21	46,43	17,80	0.26. 1.20	9. 4. 4
α Arietis	2	28.25.28	67.41. 1	50,60	17,60	0. 4.18.28	9.57.30
* ι Arietis	5	30. 0. 8	75.51.23	48,71	17,37	1. 2.50.35	1.46.48
* ξ Ceti	4	30. 4.35	82.17. 8	47,55	17,37	1. 0.41.30	4.16.54
* ξ Ceti	5	30. 4.40	85.17.27	47,54	17,37	0.29.38.48	7. 6. 1
* θ Arietis	5	31.12.18	71.12.58	49,72	17,15	1. 5.31.36	5.44.23
* σ Ceti v. n.	2	31.48.41	94. 4.48	45,41	17,04	0.28.10.17	15.56.33
* ξ Ceti	4	33.51.24	82.39.11	47,63	16,63	1. 4. 6.22	5.53.55
δ Ceti	3	36.47.59 $\frac{1}{2}$	90.43.10	46,03	16,00	1. 4.12.50	14.28.52
θ Persei	4	36.58.56	41.48.10	59,67	16,02	1.21.18.10 $\frac{1}{2}$	31.36.2

Stars Names.	Mag.	Mean R. Af. 1st Jan. 1760.	Mean Dist. from North Pole.	An. Precef. in A. R. Decl.		Mean Lon- gitude.	Mean Lati- tude.	
				S.	S.			
ε Ceti	3	D.M.S. 36.59.31	D. M. S. 102.54.10	43,42	16,02	S. D. M. S. 0.29.58.32	D. M. S. 26. 0.10	S
35 Arietis.	4	37.21.28	63.19.44	52,30	15,80	1.13.35.20	11.17.25	N
γ Ceti	3	37.43.27	87.47.18	46,65	15,86	1.16. 5.33	12. 0.41	S
μ Ceti	4	38. 0. 6	80.54.47	48,16	15,80	1. 8.34.25	5.34.54	S
π Ceti	3	38.10.39	104.53.15	42,89	15,77	1. 0.23.37	28.15.59	S
7 Persei	5	39.20.51	38.14.17	62,32	15,50	10. 5.25.45	34.20.43	N
3 Arietis	5	40.43.55	72.56.57	50,19	15,20	1.13.33.47½	1.10.30	N
η Eridani	3	41.10.45	99.51.58	43,88	15,10	1. 5.23.22½	24.33. 8	S
ε Arietis	5	41.17. 3	69.38. 5	51,11	15,05	1.15. 3.40	4.10.43	N
γ Persei	5	41.53.38	37.28.14	63,65	14,93	1.26.40.26	34.29.13	N
α Ceti	2	42.26.24	86.51.59½	46,90	14,70	1.10.58. 4	12.36.16	S
β Persei	3	43. 9.52	49.59.16	57,70	14,63	1.22.49.33	22.24. 4	N
δ Arietis	4	44.29.11	71.11.53	50,97	14,31	1.17.29.34	1.48. 7	N
ζ Arietis	5	45.17.19	69.51.40	51,41	14,11	1.18.35.49	2.52.14½	N
12 Eridani	3	45.28. 7	119.56.52	37,94	14,07	1. 1.10.58	44.44.31	S
α Eridani	3	46. 2.54	99.43.33	43,70	13,92	1.10.28. 5	25.56.53	S
ζ Eridani	2	46.49.50	41. 0.51	63,00	13,72	1.28.44.17	30. 5.58	N
* 27 Arietis	5	47.14.48	70. 8. 2	51,50	13,62	1.20.17.31	2. 6. 5½	N
* f Tauri	4	49.26.48	77.54.10	49,45	13,05	1.20.16.15	5.56.56½	S
17 Eridani	4.5	49.40.47	95.54.55	44,50	13,00	1.15.29. 5	23.21.50	S
δ Persei	3	51.29.11	43. 0.10	63,01	12,49	2. 1.27.22	27.16.33	N
b Pleiadum	5	52.10. 7	66.39.44	53,06	12,17	1.26. 3.46	4. 9.50	N
c Pleiadum	5	52.44.32	66.18.16	53,19	12,14	1.26.12.55	4.29.40	N
* d Pleiadum	3.4	52.56.33	100.35.32	43,19	12,08	1.17.29.43	28.45. 9	S
* d Pleiadum	5	53. 2. 1	66.49. 6	53,04	12,06	1.26.21. 5	3.55.52	N
* η Tauri	3	53.18.58½	66.39.22	53,13	12,00	1.26.38.34	4. 1.36	N
γ Eridani	2	56.42.35	104.12.27	41,94	11,01	1.20.30.10	33.13.13	S
1 δ Persei	4	57.12. 6	40.19.29	66,05	10,86	2. 6.24.23½	28.51.37	N
A Tauri	4	57.38. 1	68.35.37	52,82	10,74	2. 0. 5.53	1.14.15	N
* φ Tauri	5	61.24.32	63.14.45	55,06	9,60	2. 4.33.50	5.46.37	N
* γ Tauri	3	61.32.28	74.58.21	50,90	9,60	2. 2.26.50	5.45.30	S
* χ Tauri	5	62. 0.16	64.57.31	54,46	9,40	2. 4.45. 8	3.59.37	N
* 1 δ Tauri	4	62.16.57	73. 2.28½	51,60	9,34	2. 3.30.52	3.59.46	S
* 2 δ Tauri	4	62.34.25	73. 7.57	51,60	9,25	2. 3.46.19	4. 8.14	S
* 1 * Tauri	5	62.45.34	68.16.36	53,28	9,18	2. 4.50.57	0.36. 7	N
* 2 * Tauri	4	62.47.18	68.22.14	53,26	9,17	2. 4.50.35	0.30.27	N
* 3 δ Tauri	5	62.54.33	72.38.31	51,77	9,13	2. 4.10.41	3.42.48	S
* 1 v Tauri	5	62.59.43	67.45. 8	53,50	9,10	2. 5. 8.39½	1. 4.51	N
* ε Tauri	3	63.39.29	71.22.26	52,20	8,90	2. 5. 6.27	2.35.37	S

Stars Names.	Mag.	Mean R. Af. 1st Jan. 1760.	Mean Diff. from North Pole.	An. Precef. in A. R. Decl.		Mean Lon- gitude.	Mean La- tude.
		D. M. S.	D. M. S.	S.	S.	S. D. M. S.	D. M. S.
* 1 θ Tauri	5	63.43.22	74.35.29	51,14	8,87	2. 4.35.51	5.46.17
* 2 θ Tauri	5	63.44.47	74.40.59	51,14	8,87	2. 4.36.13	5.51.55
* Aldebaran	1	65.32.38,7	73.59.40	51,41	8,30	2. 6.26.10 $\frac{1}{2}$	5.29. 2
* γ Tauri	5	66.58. 5	67.31.33	53,82	7,84	2. 8.48.15	0.41. 6
* 1 π Orion	4	69.23.16	81.31.54	48,97	7,06	2. 9. 0.56	13.30.39
* 7 Camelop	5	69.31.48	36.39.44	71,42	7,01	2.15.55.14	30.51.54
* ϵ Tauri	4	72.12.43	68.46.31	53,60	6,14	2.13.27. 3	1.13.41
* m Tauri	5	73.19.12	71.42. 1	52,54	5,75	2.14. 8.29	4.15.20
* 105 Tauri	5	73.23.58	68.38.12	53,70	5,73	2.14.32.58	1.13.14
* h Eridani	3	74. 1. 5	95.24.57	44,33	5,53	2.11.56. 0	27.53.16
* Capella	1	74.44.59,5	44.16.28	66,03	5,28	2.18.30.19	22.51.46
* Rigel	1	75.45.10,9	98.29.50	43,28	4,94	2.13.28.34	31. 9.10
* β Tauri	2	77.47. 7	61.37.12	56,80	4,20	2.19.13.27	5.21.55
* γ Orion	2	78. 4. 8	83.53.21	48,28	4,15	2.17.35.51	16.50.47
* δ Tauri	5	78.18.35	68.17.31	54,00	4,06	2.19. 8.47	1.19.19
* 2 ν Orion	5	78.34. 9	87. 7.59	47,17	3,98	2.17.49.50	20. 7.15
* β Leporis	3	79.29.40	110.58. 4	38,72	3,66	2.16.19.24	43.56.26
* δ Orion	2	79.56.22	90.29.50	46,02	3,50	2.19. 0.44	23.35. 0
* α Leporis	3	80.32.21	108. 0.43	39,75	3,30	2.18. 1.47	41. 5.20
* ζ Tauri	3	80.49.43,5	69. 1.38	53,80	3,20	2.21.26. 5	2.13.25
* ϵ Orion	2	81. 0.41	91.22.33	45,71	3,13	2.20. 6.49	24.32.15
* 125 Tauri	5	81.13. 4	64.15.44	55,74	3,06	2.22. 5.14	2.31.22
* 132 Tauri	4	83.34.30	65.32.17	55,25	2,25	2.24. 9.10	1. 7.21
* γ Leporis	3	83.37. 3	112.32.47	37,91	2,23	2.22.34.27	31.41. 6
* 136 Tauri	5	84.33.46	62.28. 9	56,59	1,90	2.25.10. 2	4. 9. 6
* δ Aurig.	4	84.46.44:	35.45.53	73,92	1,77	2.26.26.56	30.49.43
* 1 χ Orion	5	85. 2.44	69.47.29	53,53	1,83	2.25.18.46	3.10.49
* 2 χ Orion	5	85.11. 7	70.19.43	53,33	1,68	2.25.27.26	3.43.21
* α Orion	1	85.32.47,2	82.39.35	48,75	1,56	2.25.24.13	16. 3.31
* θ Aurig.	4	85.50.21	52.49.52	61,34	1,40	2.26.35.15	13.44.54
* H Gemino.	5	87.23. 1	66.44.52	54,79	0,91	2.27.35.46 $\frac{1}{2}$	0.11.45
* κ Aurig.	5	90. 1.18	60.26.19	57,56	0,06	3. 0. 1. 8 $\frac{1}{2}$	6. 5.29
* η Gemino.	4	90. 5.54	67.26.52	54,50	0,00	3. 0. 5.27	0.55. 4
* μ Gemino.	3	92. 6.35	67.23.14	54,50	0,70	3. 1.56.52	0.50.34
* ν Gemino.	4	93.40.42	69.39.35	53,60	1,30	3. 3.27.13	3. 5. 8
* 23 Gemino.	5	95.32. 4	. . . .	52,34	1,92	. . . .	. . . .
* γ Gemino.	2	95.57.40	73.25. 9	52,10	2,10	3. 4.45.10	6.46.12
* 26 Gemino.	5	97. 6.20	72. 8.33	52,59	2,48	3. 6.47.32 $\frac{1}{2}$	5.26.4
* ϵ Gemino.	3	97.17.23	64.39.20	55,60	2,50	3. 6.35.20	2. 2.21

Stars Names.	Mag.	Mean R. Af. 1st Jan. 1760.	Mean Dist. from North Pole.	An. Precef. in A. R. Decl.		Mean Lon- gitude.	Mean Lati- tude.
		D. M. S.	D. M. S.	S.	S.	S. D. M. S.	D. M. S.
* 28 Gemino.	5	97.23. 5	60.48.42	57,29	2,58	3. 6.28.37	5.53. 4 N
Syrus	1	98.38.36,8	106.24. 7	40,35	3,01	3.10.46.34	39.32.55 S
* 51 Gemino.	4	102.27.57	69. 6. 2	53,67	4,33	3.11.38.29	2. 4. 4 S
* 51 Gemino.	5	104.53.40	73.27.22	51,94	5,16	3.14.20.59	6.11.11 S
19 Lyncis	5	105.48. 8:	34.17.49	74,48	5,46	2.19.28.50	32.48.33 $\frac{1}{2}$ N
* 1 Gemino.	5	106. 4.22	73. 2.55	52,06	5,55	3.15.25. 2 $\frac{1}{2}$	5. 1. 4 S
* 1 Gemino.	3	106.26.38	67.35.54	54,20	5,70	3.15.10.19	0.12.19 S
* q Gemino.	5	106.56.31	69. 7.34	53,50	5,84	3.15.48.24	1.40.13 S
* i Gemino.	5	107.42. 2	61.44.54	56,45	6,10	3.15.35. 3	5.44.17 N
* p Gemino.	5	108.22. 8	68. 5.12	53,84	6,32	3.17. 0. 1	0.28.41 S
n Can. Maj.	2	108.39. 8	118.50.57	35,72	6,42	3.26.12.34	50.38. 1 S
Castor	1	109.48.45,7	57.36.36	58,15	6,80	3.16.53.59	10. 4.35 N
* u Gemino.	4	110.17.33	62.35.36	55,94	6,95	3.18. 0.31	5.11.53 N
* f Gemino.	5	111.24. 2	71.48. 1	52,33	7,30	3.20.19.38 $\frac{1}{2}$	3.46.15 S
Procyon	1	111.40.56,8	84.10.36	48,08	7,42	3.22.28.37 $\frac{1}{2}$	15.58. 8 S
* 1 Gemino.	5	112.28.59	65. 2.54	54,81	7,67	3.20.19. 0	3. 3.20 N
Pollux	1	112.39. 3,7	61.24.57	56,27	7,72	3.19.54.24	6.40. 4 $\frac{1}{2}$ N
* g Gemino.	5	113. 3.12	70.55.32	52,57	7,85	3.21.44.45	2.40.12 S
26 Lyncis	5	114.17.24	41.50.18	66,59	8,25	3.17.48.15	26.11. 2 N
* o Gemino.	5	114.41.34	62.38. 6	55,61	8,38	3.21.53.37	5.45.17 N
* 3 Cancr.	5	116.57. 4	71. 7. 3	52,30	9,09	3.25.24.53	2.14.18 S
* 1 Cancr.	5	118. 0.54	76.41.57	53,81	9,42	3.27.28.23	7.31.56 $\frac{1}{2}$ S
* 2 4 Cancr.	4	118.59.26	63.46.59	54,83	9,73	3.25.53.34	5.19. 7 N
* 3 Cancr.	3	120.52.13	80. 5.35	49,19	10,29	4. 0.54.47	10.18.28 S
* 4 Cancr.	5	124.28.16	72. 6.44	51,85	11,35	4. 2.36.28	1.45.38 S
* n Cancr.	5	124.41.53	68.45.40	52,61	11,37	4. 2. 3.30	1.33. 7 N
* 2 Cancr.	4	127.20.30	67.41. 9	52,72	12,17	4. 4.11.41	3.10.22 N
* 1 Cancr.	4	127.45.17	70.58.48	51,65	12,38	4. 5.21.59	0. 4.13 N
* 1 Urf. Maj.	4	130.40. 2	41. 2. 3	63,66	13,07	3. 0.31.58	29.34.35 $\frac{1}{2}$ N
* 1 1 Cancr.	4	130.42. 0	77.28.23	49,60	13,20	4. 9.45.21	5.29.50 S
* 2 2 Cancr.	4	131.20. 6	77.13.44	49,60	13,30	4.10.17.31	5. 5.58 S
* 1 Cancr.	5	133.40.53	78.22.52	49,17	13,85	4.12.49.20	5.35.19 S
* 1 Cancr.	6	133.52.48	66.59.57	52,30	13,90	4. 9.51.31	5.24.12 N
* 1 Leonis	5	138.53.50:	79.54.42	48,53	15,11	4.18.11.37 $\frac{1}{2}$	5.34.21 S
* 1 Hyd.&Cor.	2	138.56.57	97.37.48	44,41	15,13	4.23.56.36	22.23.51 S
* 1 Urf. Maj.	3,4	139.10. 9	37.14.35	63,42	15,18	4. 3.57.23	34.56. 0 N
* 1 Leonis	4	139.44.49	77.39. 4 $\frac{1}{2}$	49,03	15,31	4.18.18.13	3. 9.57 S
* 10 Leonis	5	139.50.58	82. 5.58	47,98	15,33	4.19.45.55	7.22.13 S
* 1 Leonis	4	142. 4.50	79. 1.41	48,48	15,83	4.20.54.28	3.46. 1 S

rs Names.	Mag.	Mean R. Af. 1st Jan. 1760.	Mean Dist. from North Pole.	An. Precef. in A. R. Decl.		Mean Lon- gitude.	Mean Lati- tude.
		D. M. S.	D. M. S.	S.	S.	S. D. M. S.	D. M. S.
Leonis	3	143. 2.44	65. 8. 0	51,76	16,03	4.17.21.11	9.41.59 N
Leonis	5	146.19.20	76.25.17	49,03	16,69	4.23.59.22	0.37.36 N
Leonis	4	146.52.44	80.48.52	47,96	16,79	4.25.58. 2	3.55.20 S
Leonis	4	148.33.18	72. 4.38	49,57	17,11	4.24.33.13	4.51. 9 N
Leonis	5	148.47.16	78.50.11	48,24	17,15	4.27. 4.10	1.25.33 S
Regulus	1	148.53.32,5	76.52.10	48,60	17,17	4.26.29.39	0.27.27 N
Leonis	3	150.49.28	65.23.49	50,67	17,51	4.24.12.30 $\frac{1}{2}$	11.51. 2 $\frac{1}{2}$ N
Leonis	2	151.40.35	68.57.13	49,84	17,66	4.26.14.17	8.48.15 $\frac{1}{2}$ N
Urf. Maj.	3	151.59. 9	47.18.10	54,87	17,70	4.17.52.42	28.58.56 N
Leonis	4	155. 2.25	79.27.57	47,75	18,17	5. 3. 2.15	0. 8.29 N
8 Leonis	5	155.34. 0	81.49. 5	47,38	18,26	5. 4.22.34	1.51.49 S
7 Sextantis	6	158.23.42	82.23.10	47,20	18,60	5. 7.11.31	1.21.53 S
8 Sextantis	6	158.42.21	82.23.43	47,20	18,60	5. 7.28.54	1.15.32 S
5 Leonis	5	160.50.19	87.59.21	46,41	18,94	5.11.33.16 $\frac{1}{2}$	5.39. 1 S
6 Leonis	6	160.53.17	82.32.26	47,20	18,80	5. 9.14.11	0.42.34 S
Urf. Maj.	2	161.47.56	32.20.14	56,08	19,05	4.16. 3.19	45. 6.39 N
Leonis	5	162. 2.29	85. 5.55	46,70	19,10	5.11.34.17	2.31.14 S
Leonis	5	162. 4.30	82.36.54	47,00	19,00	5.10.39.36	0. 7.18 S
Urf. Maj.	1. 2	162.10.35	26.57.33	58,25	19,09	4.11.49.33 $\frac{1}{2}$	49.40.10 N
Leonis	5	163. 9.26	81.22.17	47,07	19,19	4.11.10.45	1.20.53 N
Leonis	3	165.19.38	68. 9.53	48,22	19,40	5. 7.56.43	14.19.52 N
Leonis	3	165.24.23	73.15.46	47,70	19,40	5.10. 4.13	9.40.30 N
5 Leonis	5	166.14. 1	86.40.22	46,46	19,48	5.16. 2.27	2.22.17 S
6 Leonis	5	166.38.57	87. 2.15	46,42	19,51	5.16.33.55	2.32.49 S
Leonis	5	167.11.17	82.39.31	46,75	19,56	5.15.21.37	1.41.50 N
9 Leonis	5. 6	167.55.51	87.16.40	46,40	19,60	5.17.50.21	2.16.14 S
Leonis	4	168.53.51	85.49.28	46,46	19,68	5.18. 9.37	0.33.21 S
Leonis	5	169.30.53	91.40.55	46,08	19,72	5.21. 1.44	5.42.10 S
Leonis	4	171. 9.57	89.30. 2	46,20	19,80	5.21.41.22	3. 2.51 S
ξ Virginis	5	173.13.35	80.24.34	46,58	19,91	5.19.58.42	6. 6.50 N
Virginis	5	173.22.41	82. 7.35	46,50	19,92	5.20.48. 6	4.35.52 N
Leonis	1. 2	174.11.59	74. 5.13	46,46	19,95	5.18.17.17	12.17. 8 N
Virginis	3	174.32.53	86.52.57	46,30	20,00	5.23.45.37	0.41.36 N
Urf. Maj.	2	175.16.25	34.58.16	48,54	19,99	4.27. 5.26	47. 7.28 N
Virginis	5	177. 8.28	82. 2.51	46,32	20,03	5.24.12.13	6. 9.21 N
Urf. Maj.	3	180.51.27	31.37.54	45,70	20,05	4.27.39.52	51.38.36 N
Corvi	3	180.52.30	106.12.27	46,20	20,04	6. 7.23.41	14.29.17 S
Virginis	5	181.35.43	89.19.52	46,18	20,05	6. 1.11.50	1.14.57 N
Virginis	3	181.54.33	89.19.53	46,20	20,00	6. 1.29. 6	1.22.24 N

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		D. M. S.	D. M. S.	S.	S.	S. D. M. S.	D. M. S.
* c Virginis	3	182. 2.32	85.20.58	46,10	20,04	6. 0. 1. 0	5. 4.42 N
* α Draconis	3	185.46.32	18.53. 8	40,28	19,96	4.12.52. 1 $\frac{1}{2}$	61.44.47 $\frac{1}{2}$ N
* χ Virginis	5	186.45.19	96.40.13	46,45	19,92	6. 8.48.40 $\frac{1}{2}$	3.27.13 $\frac{1}{2}$ S
* γ Virginis	3	187.22.47	90. 7.44	46,20	19,90	6. 6.49.31	2.48.57 N
* ψ Virginis	5	190.28.32	98.13.47	46,70	19,72	6.12.51.13	3.25. 8 S
* δ Virginis	3	190.52.54	85.17.33	45,87	19,70	6. 8. 8. 4	8.38.20 N
* ε Virginis	3	192.33.31	77.44.43	45,24	19,57	6. 6.36. 2	16.13.11 N
* g Virginis	5	193.50.21	99.27. 1	46,97	19,48	6.16.23.46	3.14.48 S
* θ Virginis	4	194.23.16	94.15. 4	46,56	19,43	6.14.53.19	1.45.33 N
* Spica Virg.	1	198. 8.44, 1	99.54. 4	47,27	18,97	6.20.29.40	2. 2.11 S
* ι Virginis	4	198.31. 4	101.27. 2	47,48	19,01	6.21.25.13	3.19.56 S
* ζ Urf. Maj.	3	198.33.12	33.48.54	36,65	19,01	5.12.17.26	56.22.10 N
* 2 b Virg.	5	198.52.44	95. 0.20	46,77	18,86	6.16.23.46	3.14.48 S
* m Virginis	5	202.15.44	97.28.58	47,17	18,56	6.23.21.55 $\frac{1}{2}$	1.43.39 N
* η Urf. Maj.	2	204.31. 1	39.28.52	36,08	18,24	5.23.33. 6 $\frac{1}{2}$	54.23.45 N
* α Draconis	2	209.28.28	24.28.17	24,50	17,46	5. 4. 2.46	66.21.15 $\frac{1}{2}$ N
* α Virginis	4	210. 1.50	99. 8.40	46,45	17,37	7. 1. 8.39	2.55.26 N
* Arcturus	1	211.10.53, 0	69.33.28	42,32	17,16	6.20.53.12	30.54.10 $\frac{1}{2}$ N
* λ Virginis	4	211.32.26	102.15.12	48,47	17,10	7. 3.36.13	0.30.39 N
* θ Bootis	4	214.15.32	37. 1.49	31,22	16,58	5.29.11.51	60. 8.50 N
* μ Libræ	5	219. 3. 4	103. 8. 3	49,11	15,58	7.10.49.15	2. 3.30 $\frac{1}{2}$ N
* α Libræ	2	219.24.42, 5	105. 1.45	49,60	15,50	7.11.44.19	0.21.48 N
* 2 ε Libræ	5	220.56.46	100.25.31	48,59	15,15	7.11.45.39	5.12.17 N
* 18 Libræ	5	221.29.16	100. 9.48	48,55	15,03	7.12. 6.53 $\frac{1}{2}$	6.17. 9 N
* β Urf. Min.	3	222.55.17	14.51.43	15,28	14,68	4. 9.53.18	72.58.10 N
* 1 ν Libræ	5	223.19.19	105.18.35	49,93	14,59	7.15.25.27	1.13.26 $\frac{1}{2}$ N
* 1 ρ Libræ	3	224.38.51	108.51.59	51,00	14,27	7.17.39.27	1.49.14 S
* β Libræ	2	226. 1.57 $\frac{1}{2}$	98.28.52	48,33	13,93	7.16. 1.35	8.31.28 N
* 4 ζ Libræ	4	229.52. 0	106. 1.12	50,11	12,89	7.21.40.56	2.15.56 N
* γ Libræ	3, 4	230.32. 5	103.58.15	50,00	12,70	7.21.46.59	4.24.41 N
* α Cor. Bor.	2	231. 8. 6	62.27.48 $\frac{1}{2}$	38,05	12,60	7. 8.54.48	44.21. 0 N
* 42 Libræ	5	231.32.12	113. 1. 3	52,82	12,48	7.24.58.22	4. 6.31 S
* α Libræ	4	232. 2.34	108.52.51	51,60	12,34	7.24.24.37	0. 1. 1 N
* α Serpentis	2	233. 7. 0	82.48.11	44,15	12,03	7.18.42.32	25.31.44 N
* 1 A Scorpii	5	234.48.51	114.35.22	53,65	11,56	7.28.16.14	4.55. 0 S
* λ Libræ	4	234.51.40	109.25.49	51,97	11,54	7.27. 7.36	0. 6.53 N
* θ Libræ	4	235. 2.58	106. 0.18	51,01	11,50	7.26.31. 2	3.29.24 N
* ρ Serpentis	3	235.11. 3	68.17. 9	39,62	11,45	7.16. 9.24	40. 1.35 $\frac{1}{2}$ N
* ω Scorpii	3	236. 5.47	115.23.41	54,09	11,19	7.29.35.25	5.26.15 S

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		D. M. S.	D. M. S.	S.	S.	S. D. M. S.	D. M. S.
♏ Libræ	4	236.11.53	103.34. 2	50,20	11,15	7.27. 3. 3	6. 6.56 N
♏ Scorpii	3	236.32.47	111.55. 2	52,90	11,00	7.29.13.18	1.57.17 S
♏ Scorpii	2	237.52.49	109. 7.40	52,10	10,70	7.29.50.23	1. 2.18 N
♏ Scorpii	5	238.12. 9	109.59.53	52,36	10,56	8. 0.19.13	0.15. 5 N
♏ Scorpii	5	238.20.37	110.11.58	52,44	10,52	8. 0.29.31	0. 4.57 N
♏ Herculis	5	238.50.11	43.17.29	27,97	10,38	7. 5.26.12	64.10.54 N
♏ Scorpii	4	239.31.18	108.48.58	52,07	10,16	8. 1.17.40	1.39.52 N
♏ Ophiuchi	3	240.26.54	93. 3.27	47,11	9,89	7.28.56.58	17.16.56 N
♏ Scorpii	5	241.33.35	113.34. 2	53,87	9,55	8. 4. 5.20	2.37.20½ S
♏ Scorpii	4	241.39.40	114.59.41	54,42	9,53	8. 4.27. 3	4. 0.23 S
♏ Ophiuchi	5	242.31.27	109.27.17	52,44	9,25	8. 4.12. 7	1.35. 6½ N
♏ Ophiuchi	5	242.48.34	112.52.18	53,68	9,16	8. 5. 5.19	1.43.31 S
♏ Antares	1	243.41. 0,9	115.52.34	54,89	8,89	8. 6.24.48	4.32.17 S
♏ Ophiuchi	4	244.21.24	106. 4. 2	51,40	8,69	8. 5.19. 0	5.13.47 N
♏ Ophiuchi	5	244.29.14	110.55.51	53,08	8,64	8. 5.56. 9	0.27.32 N
♏ Scorpii	4	245.14.48	117.41.42	55,74	8,41	8. 8. 6.32	6. 5.21 S
♏ Scorpii	5	246.55.47	. . . . .	51,91	7,86	. . . . .	. . . . .
♏ Oph.doub.	5	255. 9.24	116.13.22	55,70	5,14	8.16.41.22½	3.26.13 S
♏ Draconis	4	255.49. 0	35.12.27	18,63	4,91	7.22.58.35	76.25.53½ N
♏ Herculis	3	255.55.45	75.19. 5	41,09	4,87	8.12.48. 0	37.18.52 N
♏ Ophiuchi	4	256.39.35	110.49.50	53,61	4,63	8.17.32.17	2. 3.34 N
♏ Ophiuchi	3	256.49.28	114.44. 2	55,20	4,57	8.18. 2.45	1.48.35 S
♏ Ophiu.	5	257. 4.19	117.53. 2	56,49	4,49	8.18.23. 6	4.55.37 S
♏ Ophiuchi	4	257.56. 4	113.55.44	54,89	4,19	8.18.59. 1	0.55.11 S
♏ Ophiuchi	5	259.11.56	113.45. 8	54,83	3,76	8.20. 7.22	0.39. 9 S
♏ Ophiuchi	2	260.57. 4	77.14.49	41,30	3,15	8.19. 5.12	35.52.49 N
♏ Ophiuchi	4	261.12.13	97.57. 6	48,96	3,07	8.20.58. 7	15.14.34 N
♏ Draconis	3	261.15.28	37.30.41	20,36	3,05	8. 8.35.32	75.18.30 N
♏ Ophiuchi	5	262.15.59	111.52.30	54,00	2,71	8.22.48.22½	1.44. 6½ N
♏ Sagittarii	3	263. 7. 5	117.42.45,6	56,65	2,41	8.23.53.34	4.23.19 S
♏ Sag.doub.	5	266.17.18	113.46. 6	54,94	1,30	8.26.36.12½	0.20.32 S
♏ Sagittarii	3,4	267.36. 0	120.23.57	58,00	0,84	8.27.54.53	6.56.48 S
♏ Draconis	2	267.45.50	38.28.23	20,56	0,78	8.24.38. 3	74.57.28 N
♏ Sagitta.	4	269.51.13	111. 5.48	53,91	0,05	8.29.51.48	2.22.24 N
♏ Sagitta.	4	270.13.35	110.46.29	53,90	0,05	9. 0.12.33	2.41.42 N
♏ Sagittarii	6	271.24.27½	119.54.12	57,70	0,49	9. 1.13.41	6.26.27 S
♏ Sagittarii	2	272. 3.44	124.28.12½	59,95	0,72	9. 1.43.55	11. 0.45 S
♏ Sagittarii	4	273.17.32	115.31.41	55,75	1,15	9. 2.58.21	2. 5.31 S
♏ Lyræ	1	277.12.11,0	51.25.36	30,32	2,52	9.11.57. 3	61.44.40 N

Stars Names.	Mag.	Mean R. Af. 1st Jan. 1760.	Mean Diff. from North Pole.	An. Precef. in A. R. Decl.		Mean Lon- gitude.	Mean L. tude
		D. M. S.	D. M. S.	S.	S.	S. D. M. S.	D. M.
* ϕ Sagittarii	3	277.39.49	117.12.40	56.40	2,66	9. 6.49.38	3.55.2.
* 28 Sagittarii	5	277.57.59	112.37. 4	54.43	2,78	9. 7.21. 2	0.38.5
c Draconis	5	279.29.44	34.41.48	17,62	3,31	9.26.35.55	77.53.3
* 1 ν Sagittarii	4	279.55. 9	113. 0.56	54,60	3,45	9. 9. 7.21	0. 8.2
* σ Sagittarii	3	280. 5.40	116.34. 8	56,00	3,54	9. 9. 2. 7	3.24.5
* 2 ν Sagittarii	4	280. 8.59	112.56.47 $\frac{1}{2}$	54,20	3,54	9. 9.20.21	0.11.4
β Lyrae	3	280.18.26	56.53.48	33,32	3,59	9.15.33.17	56. 1. 2
* 1 ξ Sagittarii	6	280.46. 8	110.56.45	53,75	3,75	9.10. 3.24	2. 8.5
* 2 ξ Sagittarii	5	280.51. 5	111.23.52	53,70	3,75	9.10. 5.59	1.41.3
θ Serp. doub.	3	281. 4.27	86. 5.29	44,84	3,85	9.12.24.32	26.54. 8
	3	281. 4.45	86. 5.23			9.12.24.53	26.54.1
ξ Sagittarii	4	281.49.59	120.11.50	57,60	4,11	9.10.17.23	7. 8.5
ϕ Draconis	4	281.54.46	30.53.55	13,40	4,14	10.11.29.30	80.49.2
* ϕ Sagittarii	3	282.34.26	112. 4. 9	54,10	4,36	9.11.38.26	0.53.3
* 7 Sagittarii	3	282.59. 9	117.59.43	56,60	4,50	9.11.29.22	5. 2.3
ζ Aquilæ	3	283.35.50	76.28.32	41,49	4,85	9.16.27.33	36.13.1
* π Sagittarii	4	283.52.14	111.22.53	53,75	4,80	9.12.54.11	1.28.
* ψ Sagittarii	4	285.12.11	115.38.43	57,20	5,26	9.13.41.33	2.53.4
* d Sagittarii	4	285.53.43	109.21.26 $\frac{1}{2}$	52,50	5,30	9.15. 0. 1	3.17.1
* 1 χ Sagit.	5	287.39.48	114.57. 7	55,05	6,09	9.15.58.59 $\frac{1}{2}$	2.27.2
κ Cygni	4	287.53.20	37. 3.59	20,55	6,16	10.11.37.30	73.48.5
δ Draconis	3	288. 6.35	22.45.33	10,75	6,23	0.14. 0. 5	82.52.5
δ Aquilæ	3	288.20.56	87.20.44	45,30	6,31	9.20.16.30	24.50.2
* 2 h Sagittarii	5	290.31.10	115.23.29	55,07	7,03	9.18.29.31	3.13.5
i Cygni	4	290.54.49	38.46.21	22,86	7,16	10.14.40.38	71.27.4
θ Cygni	4	292.30. 0	40.19.33	24,36	7,68	10.15.20. 1	69.37.2
* f Sagittarii	5	293. 5. 6	110.19. 2	53,00	7,86	9.21.34.52	1.26.1
γ Aquilæ	3	293.42.47	79.57.16	42,93	8,07	9.27.35.58	31.16. 8
δ Cygni	3	294.22. 9	45.26.39	28,19	8,27	10.12.56.24 $\frac{1}{2}$	64.25.5
α Aquilæ	1	294.46. 0,7	81.44.55	43,54	8,40	9.28.23.21	29.18.3
* a Sagittarii	5	295.16.31	116.54.49	55,36	8,56	9.22.29. 1	5.23.5
* b Sagittarii	4	295.32.52	117.46.59	55,72	8,64	9.22.34.23	6.17.4
β Aquilæ	3	295.52.53	84.10.28	44,33	8,76	9.29. 5.17	26.42.5
* a Sagittarii	5	296. 4.34	116.49.21	55,26	8,81	9.23.12.22	5.25.5
ϵ Draconis	5	297.13.20	20.20.27	-1,92	9,17	0.29.29. 2	79.28.3
θ Aquilæ	3	299.43.46	91.30.57	46,64	9,95	10. 1.34. 4	18.45. 5
ξ Draconis	5	300.24.52	22.48.30	5,06	10,15	0.17. 7.40	78. 8.5
1 α Capric.	4	301. 4.57	103.13.54	50,20	10,40	10. 0.21.16	7. 0.4
2 α Capric.	3	301.10.51	103.16.13	50,20	10,40	10. 0.32.27	6.57.1

Stars Names.	Mag.	Mean R. Af. 1st Jan. 1760.	Mean Dist. from North Pole.	An. Precef. in A.R. Decl.		Mean Lon- gitude.	Mean Lati- tude.
		D. M. S.	D. M. S.	S.	S.	S. D. M. S.	D. M. S.
Capric.	5	301.22.43 or 23.12	109.50.54	52,35	10,43	9.29.19.33 or 29.20. 0	0.28.48 N or 28.43 N
Capric.	3	301.52.34	105.31.15	50,30	10,60	10. 0.41.45	4.36.45 N
Capric.	5	303.47.15	108.35.18	51,78	11,15	10. 1.49. 5	1.13.22 N
Capric.	5	306.35.19	108.57.57	51,70	11,96	10. 4.18.46	0.14.49 N
Delphini	3	307. 7.27	74.55.13	41,87	12,10	10.14. 2.34	33. 2.32 N
Cygni	1	308.18.51,3	45.34. 2	30,75	12,44	11. 2. 1.43	59.54.58½ N
Aquarii	4	308.40. 1	100.21.28½	49,05	12,53	10. 8.22.31	8. 6.16 N
Cygni	3	309. 7.39	56.55. 6	36,04	12,66	10.24.22.48	49.25.27 N
Aquarii	4	309.55.23	99.52. 3½	48,87	12,87	10. 9.40.40	8.16.18 N
Capric.	4	310.18.10	108.48.58	51,39	12,98	10. 7.45.17	0.28.41 S
Capric.	5	312.40.44	110.47.14	51,78	13,59	10. 9.23.29	2.58.10 S
Capric.	4	313. 6.26	108.10.13	51,00	13,71	10.10.29.13	0.33.37 S
Capric.	5	313.41.40	112. 8.36	52,07	13,85	10. 9.55.52	4.31.55 S
Aquarii	5	314. 7.30	102.19.43	48,30	13,94	10.13. 2.36	4.47.11 N
Capric.	5	315.29. 5	111.37.59	51,74	14,30	10.11.40.27½	4.30.30 S
Capric.	5	315.36.34	106. 9.13	50,24	14,33	10.13.20.53	0.42.40 N
Equulei	4	315.57.23	85.43.53	45,14	14,42	10.19.46.33	20. 8.39½ N
Cephei	5	317.12.50	107.50.31	50,56	14,72	10.14.19.48½	1.20.53 S
Cephei	3	318.12.28	28.25.27	21,55	14,95	0. 9.29. 1	68.54.43 N
Capric.	4	318.13.42	113.26. 9	51,97	14,96	10.13.34. 2	6.58.21 S
Capric.	5	318.45. 3	112.50.16	51,74	15,08	10.14.13.24	6.32.46 S
Aquarii	3	319.43.40	96.36.51	47,70	15,30	10.20. 2.54	8.37.54 N
Capric.	4	320.54.11	110.31.40	50,90	15,60	10.16.50.50	4.57.31 S
Aquarii	5.6	321.14.24	98.55. 3	48,15	15,64	10.20.45.55	5.58.39 N
Cygni	4	321.14.34	45.27.38	33,83	15,64	11.16.50.28	55.11.37 N
Cephei	3	321.22.13	20.29.22	12,67	15,66	1. 2.15.53	71. 7.57½ N
Capric.	4	321.41.28	107.43.59	50,20	15,70	10.18.25.43	2.32. 6 S
Capric.	5	322.18.23	109.56.49	50,62	15,87	10.18.17. 5	4.49.10 S
Capric.	5	323.23.57	102.27.39	48,82	16,10	10.21.39.37½	1.56.42 N
Capric.	3	323.26.30	107.12.13	49,90	16,10	10.20.10.55	2.33.40 S
π Cygni	5	324.29.11	41.47.33	33,14	16,32	11.23.52.47	56.56.11 N
Capric.	5	325. 2.46	104.40. 8	49,20	16,44	10.22.27.44	0.40. 3 S
Aquarii	3	327.43.23½	93.18.13	46,75	16,96	10.28.45.41	9.10.33 N
Aquarii	5	328.21.47	105. 1.23	49,00	17,07	10.25.22. 7	2. 3.47 S
Aquarii	3	328.21.47	91.28.33	46,50	17,10	11. 0. 0.27	10.40.25 N
5 Aquarii	5	328.56.50	109.41. 0	49,87	17,18	10.24.17.56	6.38. 1 S
Aquarii	4	331. 2.20	98.58.05	47,72	17,54	10.29.54.32	2.43.22 N
Aquarii	5	331.53.20	99. 1.10	47,70	17,69	11. 0.40.41	2.22.50 N

Stars Names.	Magn.	Mean R. Af. 1st Jan. 1760.	Mean Dist. from North Pole.	An. Precef. in A. R. Decl.		Mean Lon- gitude.	Mean Lati- tude.
		D. M. S.	D. M. S.	S.	S.	S. D. M. S.	D. M. S.
γ Aquarii	3	332.18.49	92.35.18	46.60	17.76	11. 3.21.37	8.14.48 N
π Aquarii	4	333.15.16	89.49.55	46.17	17.91	11. 5. 7.49 $\frac{1}{2}$	10.10.15 N
ζ Aquarii	4	334. 7. 1	91.14.24	46.37	18.04	11. 5.33. 4	8.51.25 N
* σ Aquarii	5	334.28.55	101.53.52	48.00	18.09	11. 2. 2.18	1.12.56 S
7 Lacertæ	4	335.21.45	40.56.42	36.54	18.23	0. 4.49.14	53.17.16 N
ν Aquarii	5	335.22.58	111.15.42	49.55	18.23	10.29.10.39	10.52.27 S
η Aquarii	4	335.45.18	91.20.48	42.00	18.58	11. 7. 3.12 $\frac{1}{2}$	8. 9.36 N
* ξ Aquarii	5	336.19.48	95.27.30	46.95	18.37	11. 6. 4.35	4. 7.26 N
* ι τ Aquarii	5	338.44.17	105.18.52	48.03	18.68	11. 4.38.28	5.54.36 $\frac{1}{2}$ S
* 2 τ Aquarii	4	339.12.59	104.51. 9	48.07	18.75	11. 5.14.43	5.39.15 S
* λ Aquarii	4	340. 1.18	98.51. 0	47.25	18.84	11. 8.13.32 $\frac{1}{2}$	0.22.56 $\frac{1}{2}$ S
* Cephei	3	340.17.54	25. 3.29	31.32	18.88	0.29.57.24	62.35.53 $\frac{1}{2}$ N
δ Aquarii	3	340.28.24	107. 5.27	48.25	18.90	11. 5.31.25	8.10.58 S
Fomalhaut	1	341. 5. 5	120.53.14	50.06	18.97	11. 0.28.55	21. 6.28 S
β Piscium	4	342.55. 2	87.28. 2	45.92	19.17	11.15.15.25 $\frac{1}{2}$	9. 3.24 N
β Pegasi	2	343. 2.40	63.12.52	43.25	19.18	11.26. 1.34	31. 8. 6 N
* 1 h Aquarii	6	343. 9.31	98.59. 2	47.10	19.20	11.11. 2.42	1.40.37 $\frac{1}{2}$ S
* 2 h Aquarii	7	343.12. 7	99. 2.40	47.10	19.20	11.11. 3.41	1.44.57 $\frac{1}{2}$ S
* α Pegasi	2	343.12.23	76. 4.54	44.75	19.20	11.20. 8.38	19.24.37 $\frac{1}{2}$ N
* 3 h Aquarii	7	343.20.32	99.13.36	47.08	19.20	11.11. 7.11 $\frac{1}{2}$	1.58.14 S
* φ Aquarii	4	345.28.18	97.20.18	46.83	19.41	11.13.47.29	1. 2. 7 $\frac{1}{2}$ S
* 1 ψ Aquar.	5	345.49.36	100.23.27	47.08	19.44	11.12.56. 5 $\frac{1}{2}$	3.59.11 S
* χ Aquarii	6	346. 6. 3	99. 1.51	46.95	19.47	11.13.42.43	2.50.14 S
* 2 ψ Aquar.	5	346.21.18	100.29.18	47.07	19.49	11.13.22.38	4.16.40 S
* 3 ψ Aquar.	5	346.36.58	100.55. 7	47.08	19.51	11.13.26.44	4.46.26 S
* 96 Aquarii	5	346.44.13	96.25.56	46.69	19.52	11.15.18.20 $\frac{1}{2}$	0.40.22 S
δ Cassiop.	5	348.34.10	29. 1.52	39.02	19.66	0.28.39.45	57.10.27 N
* 1 ξ Piscium	5	348.39.34	90. 3.18	46.18	19.66	11.19.33.16 $\frac{1}{2}$	4.26.28 N
* 1 λ Andro.	4	351.28.16	44.50.23	43.19	19.84	0.14.58.19	43.47.39 N
* λ Piscium	5	352.27.10	89.32.20	46.16	19.88	11.23.15.12 $\frac{1}{2}$	2.26.37 N
* 19 Piscium	5	353.32. 9	87.50.38	46.09	19.93	11.24.55.24	4.32.57 N
* 27 Piscium	5	356.35.49	. . . .	46.00	20.00	. . . .	. . . .
* ω Piscium	4	356.45. 4	84.27.53	46.30	20.02	11.29.13.54	6.22.13 N
* 29 Piscium	5	357.22.56	94.21.48	46.25	20.03	11.25.51.41	2.57.38 S
* 30 Piscium	5	357.24.47	97.20.53	46.30	20.03	11.24.41.42	5.42.35 S
* 33 Piscium	5	358.15.47	97. 3. 0	46.25	20.05	11.25.35.30	5.46.25 S
* α Androm.	2	359. 0.25	62.14.19	46.00	20.05	0.10.57.59	25.40.52 N
β Cassiop.	3	359. 7.40	32.10.25	45.70	20.05	1. 1.45. 52	51.13.36 N

N. B. The Stars marked with Asterisks are those which may be eclipsed by the Moon to any Part of the Globe.

Memoranda. Shewing the extreme Differences of Right Asc.
of Stars settled from different Days Observations.

Stars Names.	A.	B.	Stars Names.	A.	B.	Stars Names.	A.	B.
		"			"			"
1 Ceti . . .	4	15	π D° . . .	5	2	1 Aurig. . .		
δ Androm. . .	3	4	ψ D° . . .	4	5	1 κ Tauri . .	3	6
α Ceti . . .	6	8	d D° . . .	5	9	θ Leonis . . .	4	7
α Hydr. . .	6	12	79 Leonis . .	2	7	1 Tauri . . .	3	6
β Leonis . .	7	10	ν D° . . .	3	3	132	4	4
β Libræ . .	8	10	α Cor. Bor. .	5	7	1 Gemino. . .	3	8
α Pegasi . .	6	9	ξ Piscium . .	5	7	2 ψ Cancr. .	3	6
α Androm. .	6	14	α Piscium . .	5	5	ξ Leonis . . .	3	7
β Androm. .	4	9	δ Ceti . . .	3	2	o D°	3	8
γ D°	5	18	δ Gemino. . .	4	7	π D°	4	1
δ Virginis . .	5	7	1 ι Libræ . .	5	7	δ Virginis . .	3	5
p Sagittarii .	3	7	δ Ophiuchi . .	4	9	ϵ D°	4	8
γ Draconis .	5	11	c Virginis . .	3	7	λ D°	4	7
1 μ Sagittarii	4	8	ζ Gemino. . .	4	9	ζ Libræ . . .	4	3
2 μ D° . . .	5	10	δ Cancr. . . .	4	4	κ D°	4	5
ϵ D°	5	4	κ Virginis . .	3	6	λ D°	3	12
λ D°	5	10	δ Ophiuchi . .	4	8	δ D°	3	8
ξ Cancr. . .	3	10	ϵ Piscium . .	3	3	π Scorp. . . .	3	1
ϕ Sagittarii .	5	8	ν or 106 D° .	3	2	ψ Libræ . . .	2	0
1 ν D° . . .	5	10	o D°	4	6	γ Scorp. . . .	4	7
2 ν D° . . .	7	9	1 ξ Ceti . . .	2	4	τ D°	2	1
σ D°	4	11	h Erid. . . .	4	6	δ Ophiuchi . .	3	7
1 ξ D° . . .	5	3	17 D°	3	7	τ Scorp. . . .	4	13
2 D°	4	7	2 ξ Ceti . . .	4	10	b Ophiuchi . .	3	8
38 Sextantis	3	6	35 Arietis . .	3	7	μ D°	1	
56 Leonis . .			κ Ceti	3	9 $\frac{1}{2}$	b Sagittarii .	3	7
e Leonis . . .	4	1 $\frac{1}{2}$	δ Arietis . . .	4	13	ϕ Piscium . .	4	10
d	3	5	c Tauri	4	8	δ Ceti	6	14
ζ Sagittarii .	5	10	A D°	2	4	o (Pector.) . .	4	8
o D°	5	7	1 δ D°	3	6	ζ Erid.	3	9
τ D°	4	9	2 δ D°	3	4	γ D°	3	6

Memoranda. Shewing the extreme Differences of Right Ascension of Stars settled from different Days Observations.

Stars Names.	A.	B.	Stars Names.	A.	B.	Stars Names.	A.	B.
		//			//			//
1 π Orionis . . .	3	5	3 Lyræ . . .	2	3	7 Lacerti . . .	2	8
ϵ Cassiop. . .	4	6	9 Serp. double . .	4	9	2 Ophiuchi . .	4	8
β Persei . . .	3	9	ζ Aquilæ . . .	3	7	ζ Androm. . .	4	11
α Persei . . .	2	3	δ D ^o . . .	3	1	12 Erid. . .	4	15
α Urf. Maj. . .	3	4	θ D ^o . . .	3	6	d Cassiop. . .	2	9
37 Sextantis . .	1	.	α Delph. . .	3	13	θ D ^o . . .	2	4
γ Urf. Maj. . .	1	.	α Equulei . . .	5	8	ϵ Cephei . . .	3	21
α Herculis . . .	5	9	β Piscium . . .	3	c	19 Lyncis . . .	1	.
α Cephei . . .	2	8	η Ceti . . .	4	3	26 D ^o . . .	4	3
β Ceti . . .	4	10	ϵ D ^o . . .	4	9	δ Aurig. . .	1	.
γ Cassiop. . .	3	5	γ D ^o . . .	5	9	θ Persei . . .	2	2
δ D ^o . . .	5	11	ρ Serpentis . .	4	13	ϵ Draconis . .	1	.
γ Persei . . .	2	1	ρ Draconis . .	2	9	δ D ^o . . .	2	8
δ	4	6	ϵ Cygni . . .	3	8	τ Persei . . .	3	7
μ Urf. Maj. . .	3	3	η Erid. . .	4	6	ι Urf. Maj. . .	2	3
β D ^o . . .	3	5	π Ceti . . .	4	5	1 λ Persei . .	3	2
δ D ^o . . .	3	13	β Cassiop. . .	3	9	θ Urf. Maj. . .	3	11
η D ^o . . .	2	8	α Draconis . .	1	.	θ Cygni . . .	3	4
β Urf. Min. . .	4	7	ζ Urf. Maj. . .	3	8	α	2	1
η Can. Maj. . .	1	.	α Draconis . .	5	13	ν Herculis . .	2	1
ρ Gemin. . .	4	5	μ D ^o . . .	1	.	θ Bootis . . .	2	5
β Cancr. . .	5	12	δ Cygni . . .	2	12	θ Draconis . .	3	8
ϵ Leonis . . .	5	13	ι D ^o . . .	1	.	δ Erid. . .	3	5
ζ D ^o . . .	4	8	β Cephei . . .	2	3	1 λ Androm. .	3	5
γ D ^o . . .	4	13	γ Orionis . . .	5	4	θ Dracon. . .	3	9
δ Leonis . . .	5	9	δ Leporis . . .	3	11	ϵ Virginis . .	5	7
γ Corvi . . .	4	2	δ Orionis . . .	5	12	19 Capric. . .	6	8
γ Cancr. . .	5	11	α Leporis . . .	5	5	μ Ophiuchi . .	2	2
α Cassiop. . .	2	15	ρ Cygni . . .	3	16	7 Camelop. . .	2	6
α Serpentis . .	2	3	ϵ Orionis . . .	4	16			
δ Ophiuchi . .	5	6	γ Leporis . . .	3	5			
β Draconis . .	3	11	2 π Cygni . . .	4	13			

Memoranda. Shewing the extreme Differences of Right. Asc.
of Stars settled from different Days Observations.

Here follow Stars of 5th mag. lying in the D's way.			Stars Names. A. B.		Stars Names. A. B.	
				"		"
			125	3. 7	m Tauri . . .	5 11
			136	5 11	48 Leonis . .	4 7
					55	1 .
			1 χ Orionis . .	4. 7	χ	5 9
d Piscium . . .	2	1	2 χ D°	4 14	75	4 8
20 Ceti	3	11	H Gem. Prop. .	4 10	76	3 9
e Piscium . . .	4	7	e Aurig.	3. 3	σ	5 8
μ D°	3	2	23 Gemin. . . .	2 1	" Virginis . .	3 8
"	5	10	26 D°	3 8	χ	4 5
τ	4	8	28	2 5	ψ	3 4
105	4	8	51	3 5	g	4 3
19 Arietis . . .	3	7	λ	4 6	21	3 4
1 ξ Ceti	2	3	q	4 8	m	4 9
1 θ Arietis . . .	4	3	"	5 14	μ Libræ . . .	3 10
3 p	4	7	p	5 6	2 ξ	5 11
e Arietis	4	3	f	4 6	18	3 1
ζ D°	4	15	z	3 9	1 v	5 4
2 τ D°	2	7	g	5 9	42	2 8
b Pleiad.	5	12	3 Cancri	1 .	A Scorp. . . .	2 1
e Pleiad.	4	12	1 μ	3 6	1 ω	4 12
d D°	4	9	2	3 2	2 ω	5 4
2 Tauri	4	10	" Capricorni . .	2 7	19	1 .
χ	4	7	z	3 8	ψ Ophiuchi . .	3 4
1 z	4	9	2 Leonis	2 19::	g	4 7
3 δ	4	11	10	1 .	ω	4 16
1 v	3	2	v	4 8	24	3 11
1 θ	4	9	A	1 .	A	4 8
2 θ	3	10	τ	4 10	43	1 .
τ	5	6	e	4 3	e or 50	4 12
105	4	5	1 ξ Virginis . .	5 6	D	5 9
0	4	7	v	4 8	b Sagit. } . .	5 12
2 ψ	4	5	ω	4 5	Nebul. } . .	5 12

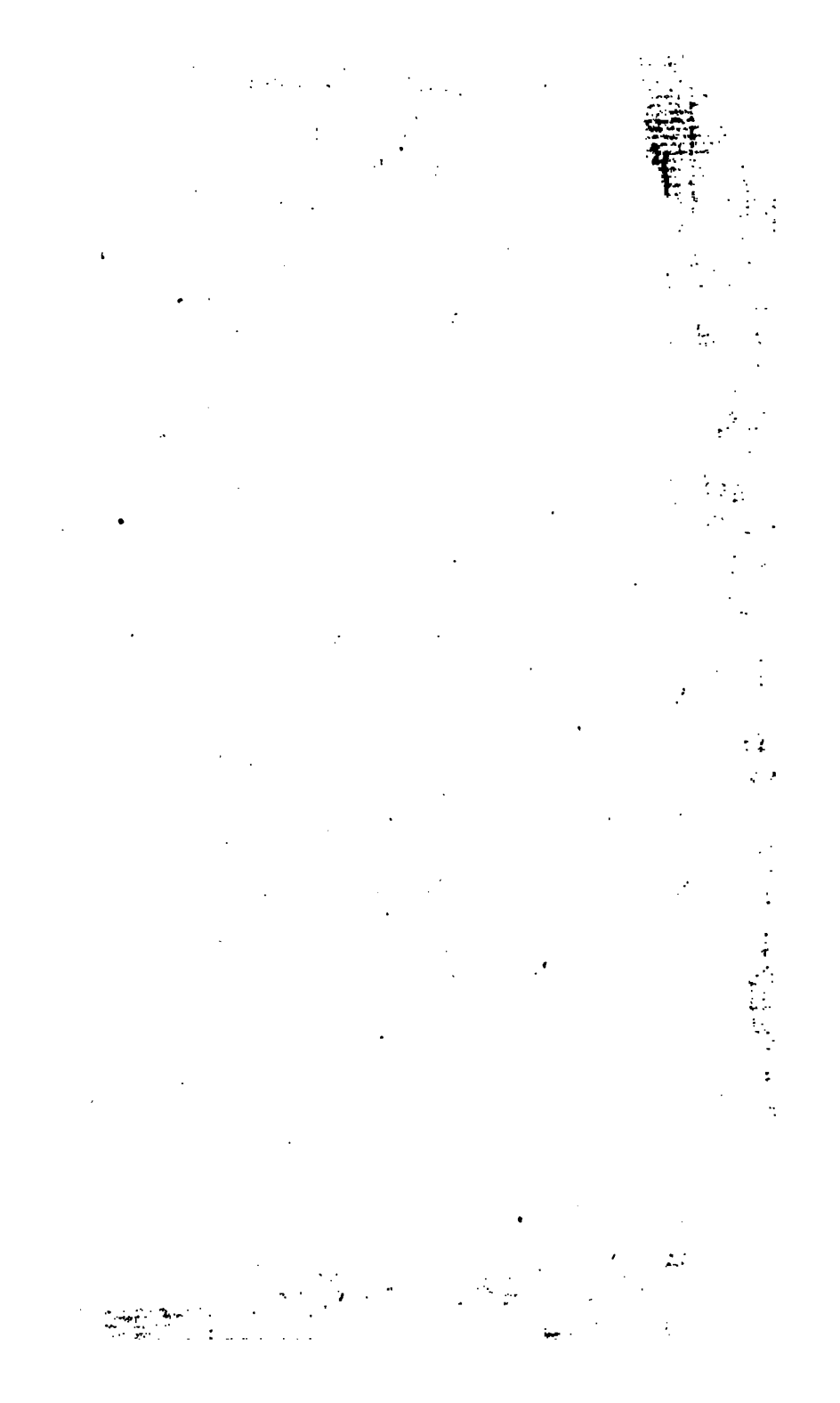
Memoranda. Shewing the extreme Differences of Right Asc. of Stars settled from different Days Observations.

Stars Names.	A.	B.	Stars Names.	A.	B.	Stars Names.	A.	B.
		"			"			"
28 Sagittarii	3	11	2	4	4	19	3	3
1 χ	4	8	29	4	6	27	3	4
2d h	5	4	1	5	5	29	4	7
f	4	8	b	3	3	30	4	13
w	5	14	2	4	5	33	4	9
a	4	3	2	3	11			
σ Capric. . . .	4	2	35 Aquarii .	4	5			
p	3	5	96	4	7			
v	2	0	1 χ Piscium	5	14			
1 χ	4	8	2 D ^o	5	13			

In the above, the Column A. shews the Number of Observations from whence the A.R. of the Stars was reduced.—B. shews the Difference of the Extremes of these Observations in Seconds of Right-Ascension.

Note, I had drawn (originally) 2 Columns more to put down the Numb. of Observations, &c. from whence their Declinations were settled; but, instead of their being filled up, find this Remark: "That the Declination is always settled, in all the Stars, from 2, 3, or 4 Observations, and the Difference of the Extremes very seldom exceeds 3'', but never 5'', without an absolute Mistake, even in the lowest Stars, the Barometer and Thermometer still accounting for the Variation of Refraction."

C. MASON.



THE UNIVERSITY OF CHICAGO

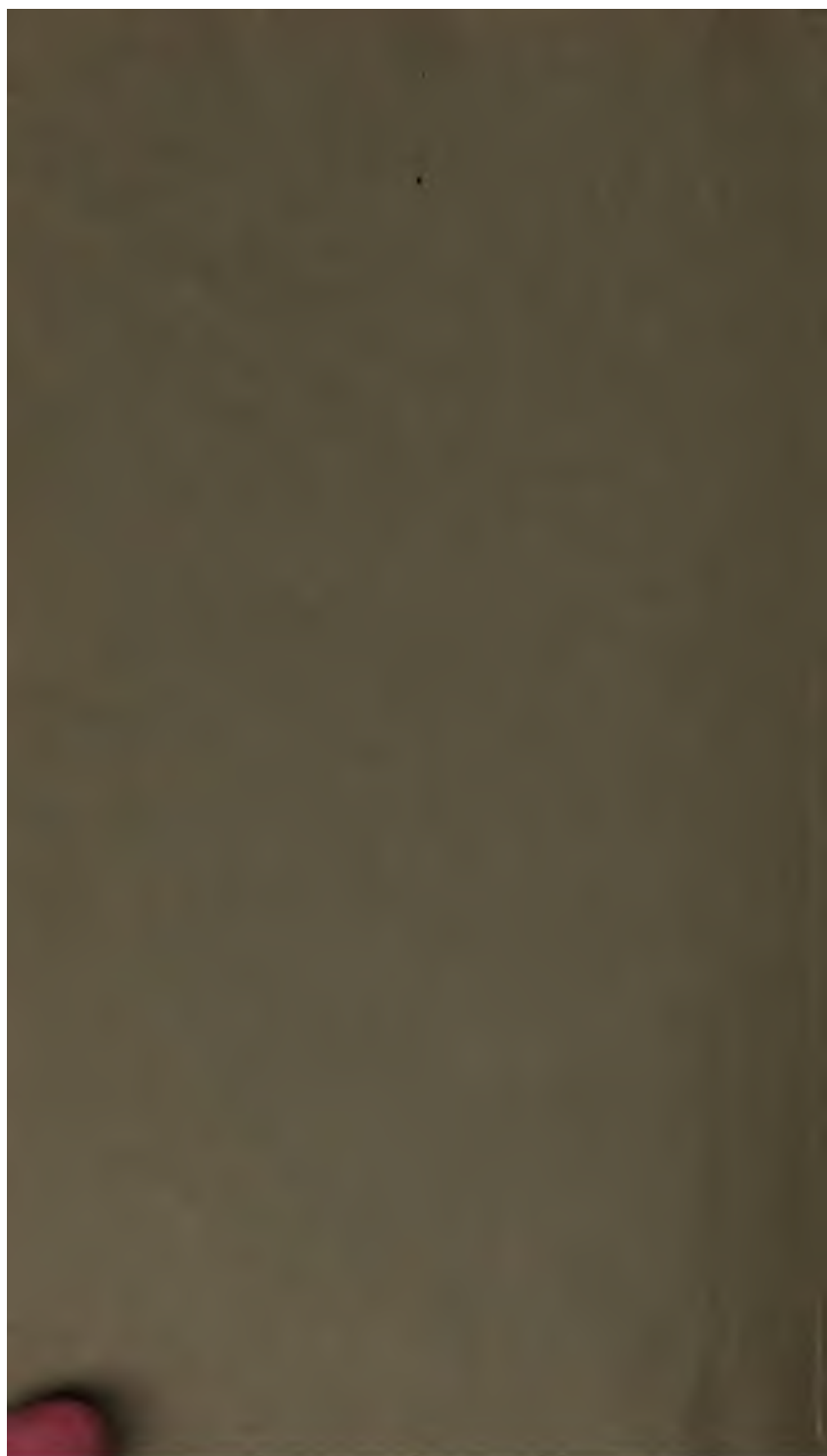
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1

2

3





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